BENGAL SECR
LIB

A Statistical Account of Bengal.

By W. W. HUNTER, B.A., LL.D.,

DIRECTOR-GENERAL OF STATISTICS TO THE GOVERNMENT OF INDIA;

ONE OF THE COUNCIL OF THE ROYAL ASIATIC SOCIETY; HONORARY OR FOREIGN MEMBER OF THE ROYAL INSTITUTE OF NETHERLANDS INDIA AT THE HAGUE, OF THE INSTITUTO VASCO DA GAMA OF PORTUGUESE INDIA, OF THE DUTCH SOCIETY IN JAVA, AND OF THE ETHNOLOGICAL SOCIETY, LONDON; HONORARY FELLOW OF THE CALCUTTA UNIVERSITY; ORDINARY FELLOW OF THE ROYAL GEOGRAPHICAL SOCIETY, ETC.

VOLUME XVIII.

DISTRICTS OF CUTTACK AND BALASOR.

TRÜBNER & CO., LONDON 1877.

PREFACE

TO VOLUME XVIII. OF

THE STATISTICAL ACCOUNT OF BENGAL.

THE present Volume treats of the central and eastern Districts of the Orissa Division. This Division, which for many purposes may be regarded as a distinct province shut off from Bengal Proper, naturally divides itself into two portions,—the three Regulation Districts of Balasor, Cuttack, and Puri, the home of the Uriyá race, lying along the sea-board; and the mountainous inland territory inhabited by aboriginal tribes, still ruled by their semi-independent chiefs. The unwieldy bulk to which this volume would have extended compels me to detach my Account of Puri from the two low-land Districts with which it is so intimately connected, and to place it in the following Volume together with the Tributary States.

Cuttack and Balasor consist of three belts of country, running nearly parallel with the coast, and slowly rising as they recede from it. The first of these belts is a narrow maritime strip of marsh and jungle, new lands deposited by the silt-laden rivers from Central India and the sand-burdened currents of the Bay of Bengal; saline regions destitute of crops or of inhabitants. The second is the Delta proper, alluvial plains of older formation and of a level now fairly raised, teeming with villages and rich in inexhaustible harvests of rice. The third is a rocky and barren border-land, gradually ascending into the wooded mountains and glens of the Tribu-

tary States. Cuttack, the central District of the Division, owes its creation, its wealth, and its disasters to the Mahánadí, 'the Great River,' which bursts abruptly upon the plains a little above Cuttack city from a picturesque gorge. Northwards, in Balasor District, the hill ranges come down closer to the Bay of Bengal, but the same physical aspects repeat themselves on a smaller scale.

The peculiar position of Orissa has entailed special duties upon the Government. Its uncontrolled water-supply exposes it to the extremes of flood and drought; while the mountain barrier on the one side, and the monsoon-beaten coast on the other, combine to produce an isolation which intensifies every local scarcity into a famine. The following pages describe the irrigation scheme and the recent development of maritime commerce, by which it is hoped to render the recurrence of such a calamity as that of 1866 impossible.

The total area dealt with in this Volume amounts to 5926 square miles, containing in 1872 a population of 2,265,016 souls.

W. W. H.

TABLE OF CONTENTS:

DISTRICTS OF CUTTACK AND BALASOR.

DISTRICT OF CUTTACK.

	PAGE
TOPOGRAPHY AND GENERAL ASPECTS OF THE DISTRICT,	19-59
Area and Boundaries,	19-20
Jurisdiction,	20
Physical Aspects,	20-22
River System,	22-25
Estuaries and Harbours,	25-35
Water Supply,	35-37
Orissa Canal System,	37-51
Embankments,	51-53
Fisheries,	53-58
Lines of Drainage,	58
Jungle Products and Pastures,	58-59
Feræ Naturæ,	59
THE PEOPLE,	59-99
Population, including the Census of 1872,	59-67
Ethnical Division of the People,	67-70
List of Castes,	71-77
Aboriginal Tribes,	77-78

DISTRICT OF CUTTACK—*continued.*

The People—*continued.*

	PAGE
Religious Division of the People, . .	78-80
List of Towns and Villages, and Antiquarian Remains, . . .	80-97
Material Condition of the People; Clothing, Dwellings, Food, etc., . . .	97-99
AGRICULTURE, ...	99-146
Rice Cultivation and List of Crops, .	99-104
Area, Out-turn of Crops, etc., . .	104-107
Condition of the Peasantry, .	107-109
Rent Law, ...	109-110
Domestic Animals, ...	110
Wages and Prices, ...	110-116
Agricultural Implements, . . .	117
Weights and Measures, . . .	117
Landless Labouring Classes, . .	117-118
Land Settlement and Tenures, . .	118-139
Rates of Rent, ...	139-146
Manure and Irrigation, . . .	146
Rotation of Crops, ...	146
NATURAL CALAMITIES, ETC., . . .	146-173
Blights, ...	146-147
Floods and Droughts, . . .	147
Famine Warnings, ...	148
The Famine of 1866 in Orissa, . .	148-173
MEANS OF COMMUNICATION, MANUFACTURES, COMMERCE, ETC., ...	173-177
Roads and Canals, ...	173-174

DISTRICT OF CUTTACK—*continued.*

Means of Communication, etc.—*continued.*

PAGE

Manufactures, . . . 174-175
Commerce and Trade, . . . 175-176
Mines and Quarries, . . . 177

ADMINISTRATIVE, ETC., . . . 177-234
History of Orissa, ... 177-200
Revenue and Expenditure at Different Periods, ... 200-202
Land Revenue, ... 202-203
Civil and Criminal Courts, . . . 203
Police and Jail Statistics, . . . 203-212
Educational Statistics, . . . 212-220
Postal Statistics, ... 220
Administrative Divisions, . . . 220-223
List of Fiscal Divisions (*Pargands*), . 223-231
Cultivable Land, ... 231-232
Survey Measurements, . . . 232-234

METEOROLOGICAL AND MEDICAL, . . 234-243
Climate, Temperature, and Rainfall, . 234-235
Endemics and Epidemics, . . . 235-236
Charitable Dispensaries, . . . 236-238
Vital Statistics, ... 239
Cattle Disease, ... 240
Indigenous Drugs, ... 240-243

DISTRICT OF BALASOR.

TOPOGRAPHY AND GENERAL ASPECTS OF THE DISTRICT, ... 247-264
Area and Boundaries, . . . 247-248

DISTRICT OF BALASOR—*continued.*

Topography and General Aspects, etc.—*continued.*

	PAGE
Jurisdiction,	248
Physical Aspects,	248-250
River System,	250-252
Ports and Harbours,	252-262
Embankments,	263
Fisheries,	263
Feræ Naturæ,	264
THE PEOPLE,	264-289
Population, including the Census of 1872,	264-267
Ethnical Division of the People,	267-270
Emigration,	270-271
List of Castes,	271-277
Religious Divisions of the People,	277-279
List of Towns and Villages,	279-284
Fairs,	284
Village Officials and Institutions,	284-287
Material Condition of the People; Dwellings, Clothing, Food, etc.,	287-289
AGRICULTURE,	289-322
Rice Cultivation, and List of Crops,	289-291
Cultivated Area and Out-turn of Crops,	291-292
Condition of the Peasantry,	292-294
Domestic Animals and Agricultural Implements,	295
Wages and Prices,	295-299
Weights and Measures,	297
Day-Labourers,	297-300
Waste Land,	300-301

DISTRICT OF BALASÓR—*continued.*

	PAGE
Agriculture—*continued.*	
Land Tenures, ...	301-320
Rates of Rent, ...	320-322
Manure, ...	322
NATURAL CALAMITIES, ETC., . . .	322-334
Blights, ...	322-323
Floods and Droughts, . . .	323-326
Famine Warnings, ...	326-328
The Famine of 1866 as it affected Balasor,	328-334
MEANS OF COMMUNICATION, MANUFACTURES, COMMERCE, ETC., ...	334-344
Roads, ...	334-336
Manufactures, ...	336-337
Commerce and Trade, . . .	337-344
ADMINISTRATIVE, ...	344-366
Administrative History, . . .	344
Land Tax, ...	344
Revenue and Expenditure, . .	345
Civil and Criminal Courts, . .	346
Police and Jail Statistics, . . .	346-352
Educational Statistics, . . .	352-359
Postal Statistics, ...	359
Administrative Divisions, . . .	360-361
List of Fiscal Divisions (*Pargands*), .	361-366
METEOROLOGICAL AND MEDICAL, . .	366-372
Climate, Temperature, and Rainfall, .	366-367
Endemics and Epidemics, ...	367-369

DISTRICT OF BALASOR—*continued.*

Meteorological and Medical—*continued.*

PAGE

Charitable Dispensaries, . . . 369-370
Vital Statistics, ... 370
Cattle Disease, ... 370-371
Indigenous Drugs, ... 371-372

INDEX, ... 373-380

I shall be grateful for any corrections or suggestions which occur to the reader. They may be addressed to me, at the India Office, Westminster.

W. W. H.

DISTRICTS

OF

CUTTACK AND BALASOR

STATISTICAL ACCOUNT

OF THE

DISTRICT OF CUTTACK.

VOL. XVIII.

BENGAL SECRETARIAT LIBRARY

STATISTICAL ACCOUNT

OF THE

DISTRICT OF CUTTACK.[1]

CUTTACK (KATAK, 'the Fort'), the central District of the Orissa Commissionership or Division, is situated between 20° 1′ 50″ and 21° 10′ 10″ north latitude, and between 85° 35′ 45″ and 87° 3′ 30″ east longitude. It contains a present area, as returned

[1] This Statistical Account has been mainly compiled from my work on Orissa (2 vols. London 1872; Smith, Elder, & Co.), supplemented by the following other materials:—(1) Geographical, Statistical, and Historical Account of Orissa, by Mr. A. Stirling, published in vol. xv. of *Asiatic Researches*, and written about 1822; (2) Sketch of the History of Orissa from 1803 to 1828, by Mr G. Toynbee (Calcutta 1873); (3) Annual Administration Reports of the Government of Bengal from 1871-72 to 1874-75; (4) *The Bengal Statistical Reporter*, from November 1875 to October 1876; (5) Report on the Fish and Fisheries of Bengal, by Dr. F. Day, Inspector-General of Fisheries (Calcutta 1873); (6) Bengal Census Report, 1872, with subsequent District Compilation, by Mr. C. F. Magrath, C.S.; (7) Paper on the Antiquities of the Cuttack Hills, by Bábu Chandra Sekerá Banarjí, published in the *Journal of the Asiatic Society of Bengal* for 1870, vol. xxxix. part. i.; (8) Report on the Food-grain Supply of Bengal, by Mr. A. P. Macdonnell, C.S. (Calcutta 1876); (9) Report on the Land Tenures of Cuttack, by Bábu Rangalál Banarjí, Deputy-Collector, dated 23d August 1875; (10) Collector's Report on the Rates of Rent current in the District, dated 17th December 1872; (11) Report of the Commissioners appointed to inquire into the Famine in Bengal and Orissa in 1866; (12) Report of the Inspector-General of Police for 1872; (13) Report of the Inspector-General of Jails for 1872, with special Jail Statistics for the years 1857-58, 1860-61, and 1870; (14) Annual Report of the Director of Public Instruction for 1872-73, with special Statistics compiled for the years 1856-57, 1860-61, and 1870-71; (15) Postal Statistics for 1861-62, 1865-66, and 1870-71, furnished by the Director-General of Post Offices; (16) Report on the Charitable Dispensaries of Bengal for 1871 and 1872; (17) Report of the Meteorological Department; (18) Statement of Latitudes and Longitudes furnished by the Surveyor-General.

in the *Statistical Reporter* of October 1876, of 3858 square miles; and a total population, as ascertained by the Census of 1872, of 1,494,784 souls. The principal town, which is also the Administrative Headquarters of the District and of the Orissa Division, is Cuttack city, situated on a tongue of land formed by the Mahánadí and Kátjurí rivers at their point of bifurcation, in 20° 29′ 4″ north latitude and 85° 54′ 29″ east longitude.

Boundaries.—Cuttack District is bounded on the north by the Baitaraní river and Dhámrá estuary, which separate it from Balasor District; on the east by the Bay of Bengal; on the south by Puri District; and on the west by the semi-independent Tributary States of Orissa.

Jurisdiction.—The District of Cuttack, together with the rest of Orissa, was acquired from the Marhattás by the British in 1803. The early history of the Province under Hindu and Muhammadan rule, and a brief sketch of the process by which the English power was consolidated in the beginning of the present century, will be found in a subsequent section of this Account. The administrative area of the District has undergone frequent changes. It was not until the 26th November 1868 that a Government notification rendered identical the revenue and magisterial boundaries, by making the Baitaraní and Dhámrá rivers the northern limit in both departments of administration. Previously, the Baitaraní had formed only the magisterial boundary; while several Fiscal Divisions (*parganás*) on the north of it belonged to the Cuttack Collectorate, and several on the south to the revenue jurisdiction of Balasor. The new arrangement took effect, as regards the transfer of estates from the rent-roll of one District to the other, from the 1st April 1870. The civil jurisdiction of the Judge of Cuttack extends over all the British Districts of Orissa, although not into the Tributary States; and in his criminal functions he proceeds on circuit to Puri and Balasor, to hold Sessions at certain periods of the year.

General Aspect of the District.—Cuttack District consists of three distinct tracts:—(1) A marshy, woodland strip along the coast from three to thirty miles in breadth; (2) an intermediate arable tract of rice land in the older part of the delta; (3) a broken hilly region, which forms the western boundary of the District. (1) The marshy strip along the coast resembles the Bengal Sundarbans as regards its swamps, dense jungle, and noxious atmosphere; but it lacks the noble forest scenery of the Gangetic

tract. I have examined the flora of both, and, so far as my knowledge extends, it is substantially the same, except that everything is on a smaller scale in the Orissa Sundarbans. This strip is intersected by innumerable streams and creeks, whose sluggish waters deposit their silt and form morasses and quicksands. Cultivation does not begin till the limits of this dismal region are passed. (2) The intermediate arable plains stretch inland for about forty miles, and occupy the country between the marshy sea-coast strip and the hilly frontier. They are intersected by several large rivers, which emerge from the western mountains, and throw out a network of branches in every direction. These, after innumerable twists and interlacings, frequently rejoin the parent stream as it approaches the ocean. It is a region of rich rice fields, dotted with magnificent banyan trees, thickets of bamboos, exquisite palm foliage, and fine mango groves. It forms the only really fertile part of the District. (3) The hilly frontier separates the settled part of Orissa from the semi-independent Tributary States. It consists of a series of ranges, from ten to fifteen miles in length, running nearly due east and west, with thickly-wooded slopes and lovely valleys between. This region annually sends down vast quantities of jungle products to the plains, such as *sál* timber, resin, lac, *tasar* silk, bees-wax, dyes, fibres, etc. Unfortunately, the timber is small, and of little value except as fuel.

The political character of the foregoing three tracts is as distinct as are their natural features. The first and third are still occupied by their ancient feudal chiefs, and have never been subjected to a regular Settlement, either by the Musalmán or the British Government. They pay a light tribute, now permanently fixed. The intermediate plains, known as the Mughulbandí, from their having been regularly settled by the Muhammadans, have yielded to the successive dynasties of Orissa the chief part of their revenue. At present they form an ordinary Bengal District in every respect, excepting that the arrangement for the land revenue is made for a period of thirty years instead of in perpetuity.

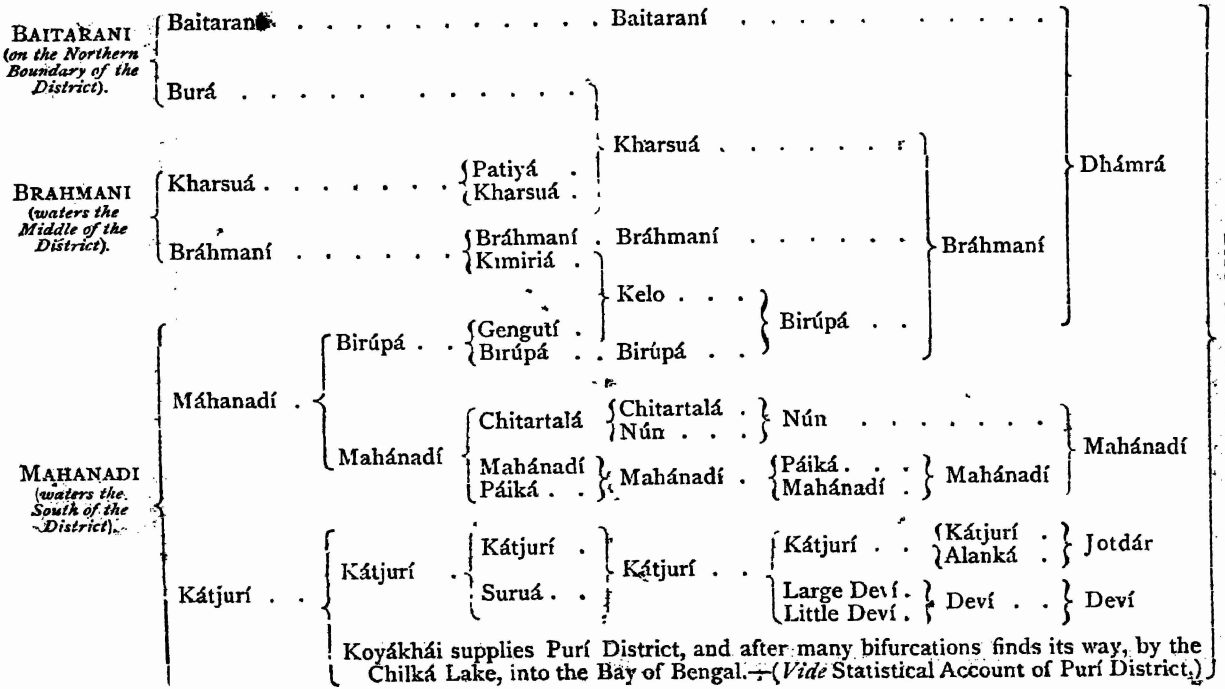
MOUNTAINS can scarcely be said to exist within the District. The highest hills do not exceed two thousand five hundred feet in elevation; and these, with the exception of a few isolated peaks near the town of Cuttack, all lie in the western or frontier region. They are steep and covered with jungle, but can be ascended by men. Many of them are interesting as Shrine Hills or for their

ancient forts, and will be briefly described on a subsequent page. The most interesting hills are in the Assiá range, particularly Náltigirí, with its sandal trees and Buddhist remains; Udáyagirí (Sunrise-hill), with its colossal image of Buddha, sacred reservoir, and ruined temples and caves; Assiágirí, with its mosque of 1719 A.D., 2500 feet above the sea. The Mahávinyaka peak in the Tributary States, visible from Cuttack, has been consecrated for ages to Siva-worship by ascetics and pilgrims, who have penetrated its jungles, fearless of the wild Savars and other forest tribes.

River System.—The great feature of Cuttack District is its rivers. These issue in three magnificent streams, by three gorges, through the hilly frontier which separates the District from the semi-independent mountainous Tributary States. In the south, the Mahánadí, literally the Great River, pours down upon the delta from a narrow gully at Naráj, about seven miles west of the town of Cuttack. On the extreme north of the District, the sacred Baitaraní, the Styx of the Hindus, emerges from a more open country, and forms the boundary between Cuttack and Balasor. The Bráhmaní enters the District about half-way between the two. Cuttack is thus divided into two great valleys, one of them lying between the Baitaraní and Bráhmaní, and the other between the Bráhmaní and the Mahánadí; both valleys therefore being bounded by a river on either side. I say valleys, because the Cuttack rivers, according to the law of alluvial streams, run along the higher levels, with low lines of drainage between them, instead of flowing along the lowest ground; and instead of receiving confluents, they shoot forth distributaries in all directions. This is owing to a very simple cause. The rapidity of the current acquired among the mountains and table-lands brings down a vast quantity of silt suspended in the water. But no sooner does each river reach the level plain, than it finds its current checked; the farther it goes the more sluggish it becomes, and the less able to carry down the sand with which it is charged. It accordingly deposits the silt in its bed, and during floods upon its banks. By degrees, therefore, the bed and the banks gradually rise, until the river forms a sort of canal, running along a higher level than the adjacent country. The same process goes on in every one of the distributaries into which the parent stream breaks up.

The following table illustrates the main points in the river system of Cuttack District, but the minor interlacings are innumerable:—

THE RIVER SYSTEM OF CUTTACK DISTRICT.



THE MAHANADI, literally the Great River, rises in Ráipur District in the Central Provinces. Its entire length is 529 miles, and its catchment basin covers an area of 45,000 square miles. The river enters the District from the Tributary States, and pours down upon the delta through a narrow gorge at Naráj, about seven miles west of the town of Cuttack. After traversing the District from west to east, and throwing off numerous branches, it falls into the Bay of Bengal by several channels at False Point. An account of the Mahánadí estuary and of False Point harbour will be given on a subsequent page. The principal offshoots of the Mahánadí, together with their minor distributaries, are as follow:—On the right or south bank, the Great River, soon after entering the District, throws off a large stream—(1) the Kátjurí, which immediately divides into two, of which the southern branch, under the name of the Koyákhái, passes into Puri District. The Kátjurí, after a further short course, throws off the Suruá, which reunites with the parent stream after a course of a few miles. A little lower down, the Kátjurí throws off two minor distributaries from its right bank, the Large and Little Devi, which unite after a southerly course of about twenty miles; and under the name of the Devi, the combined stream passes into Puri District, and falls into the Bay of Bengal a few miles below the southern boundary of Cuttack. A brief description of the port of Máchhgáon, which is situated on the left bank of the Devi, within Cuttack District, will be given on a subsequent page. A cross stream connects the Mahánadí with the left bank of the Kátjurí, which latter river ultimately falls into the Bay of Bengal, under the name of the Jotdár. (2) The only other important southern distributary of the Mahánadí is the Páiká, which branches off from the parent stream ten miles below Cuttack town, and rejoins it again after a course of about twelve miles. The offshoots from the left or north bank of the Mahánadí are the following:—(3) The Birúpá takes off from the Mahánadí opposite the town of Cuttack; and after flowing in a north-easterly direction for about fifteen miles nearly parallel with the Calcutta road, it throws off the Genguti from its right bank, which, after receiving the waters of the Kelo, again falls into the Birúpá. The latter river afterwards joins the Bráhmaní, and its waters ultimately find their way into the Bay of Bengal by the Dhámrá estuary. (4) The Chitartalá branch of the Mahánadí leaves the parent stream about ten miles below the Birúpá mouth. After flowing a few miles, the Chitartalá bifurcates into the Chitartalá

and the Nún. These streams unite after a course of about twenty miles, and, under the name of the Nún, the united waters fall into the Mahánadí estuary a few miles from the coast, and so into the Bay of Bengal.

THE BRAHMANI takes its rise in Lohárdagá District in Chutiá Nágpur, and after passing through the Tributary States of Orissa, enters Cuttack near Garh Balrámpur. It follows a very winding course from west to east; and its waters find their way into the Bay of Bengal by two mouths, the Dhámrá estuary and the Máipárá river. The principal branch of the Bráhmaní on its right bank is the Kimiriá river, which takes off opposite the village of Rájendrapur; and which, after mixing its waters with the Gengutí, Kelo, and Birúpá, falls again into the parent stream at the village of Inápur. On the left bank of the Bráhmaní, as it approaches the sea, it receives as a tributary the waters of a considerable stream, the Kharsuá, which takes its rise in the Tributary States. A short distance above the point where it receives the Kharsuá, the Bráhmaní mixes its waters with the Baitaraní, the river next to be mentioned, and the united stream forms a noble estuary, known as the Dhámrá river.

THE BAITARANI takes its rise in the Tributary State of Keunjhar. It enters Cuttack near the village of Bálipur; and after flowing in a winding easterly course across the delta, marking the boundary-line between Cuttack and Balasor, it joins its waters with the Bráhmaní, as stated above, and the united stream finds its way into the Bay of Bengal, under the name of the Dhámrá river. The principal branches thrown off from the right bank of the Baitaraní are cross streams which connect it with the Kharsuá. On its right bank, the Baitaraní receives as tributaries the Sálandí and Matái rivers; but these are situated within Balasor, and their description naturally belongs to the Statistical Account of that District.

ESTUARIES AND HARBOURS.—As the Cuttack rivers enter the District by three great gorges in the hills, so, after innumerable bifurcations, they find their way into the ocean by three principal mouths. The Mahánadí, or rather that portion of it which remains in Cuttack District, after a variety of interlacings, forms two great estuaries, one generally known as the Devi, with its connected channel, the Jotdár, in the south-eastern corner of the District; the other, bearing the name of the parent river, the Mahánadí, at False Point, about half-way down the coast; while on the north, the Baitaraní and Bráhmaní debouch into the Bay of Bengal, under the name of

the Dhámrá, at Point Palmyras. The following is a brief description of each of these estuaries, explaining their capabilities as harbours and the perils incident to their approach.

THE DEVI ESTUARY; MACHHGAON.—The Devi, literally the Goddess (a title specially applied to the wife of Siva, the All-Destroyer), with its channel, the Jotdár, forms the last part of the great network of rivers into which the Kátjurí branch of the Mahánadí bifurcates. According to a characteristic of the Cuttack streams, most of the members of this network reunite as they approach the ocean; and the result is a broad and noble estuary, which, under the name of the Devi, enters the sea in 19° 58′ north latitude, and 86° 25′ east longitude. Some years ago a permanent beacon was erected at the mouth, in latitude 19° 58′ N.; and a chart of the channel, in three sheets, was completed in 1869. For seven miles inland from the mouth, an excellent channel of from sixteen to twenty-four feet is obtained. Above this distance the river shoals rapidly, and is only navigable by country boats. Unfortunately, however, this admirable harbour is rendered almost useless by bars of sand across its mouth. During the cold season, or from November to March, vessels drawing ten feet of water can safely enter it by watching the tide. But once the south-west monsoon has set in, the surf rages outside in a way that renders the approach of vessels perilous in the extreme. During this season, navigators, if they dare to approach at all, must go by the depth shown in the new charts of the Indian Marine Department, dated 1869. Outside the bar, the water shoals rapidly from forty-four to six feet. The bar itself is two hundred yards broad, with four feet of water at lowest tide. Once past this, the channel again deepens through six and seven feet to twelve feet; and higher up, as already stated, from sixteen to twenty-four feet. The ordinary rise of tide is from four to six feet. It runs for twenty-eight miles up the river; and this is the limit of navigation even for country boats, if laden, in the dry season. After the rains, and at the beginning of the cold weather, a much greater depth of water is obtained, and an extensive rice trade has developed at Máchhgáon, about nine miles from its mouth. I regret that I have been unable to obtain any statistics showing the extent or value of this trade. Sea-going brigs cannot get up to the mart, but they float in with the tide as far as they can, and are laden from country cargo-boats. The mouth of the river is surrounded by dense jungle, destitute of inhabitants or of villages;

and a line of surf, on both sides of the channel, forms a continuous landmark for vessels running in and out. I have never heard of an English ship venturing into the estuary, nor is the harbour mentioned in Horsburgh's Sailing Directions; but the Madras traders with native masters and crews willingly undertake the risk in their lighter craft, and get lucrative freights, owing to the local cheapness of rice. The shoals and bars vary in depth from year to year.

THE MAHANADI ESTUARIES; FALSE POINT.—The northern branches of the Mahánadí, after endless bifurcations, also reunite towards the sea, and eventually enter the Bay of Bengal under the name of the parent stream. The estuary has several mouths, but the principal one is that which debouches through the shoals to the south of False Point Lighthouse. For many miles up the river, there is abundance of depth for ships of 300 or 400 tons burden; but unfortunately, as in the case of the Devi, and indeed of all other Orissa harbours, a bar stretches across the mouth, which, in addition to the perils of shoal water, adds the dangers incident to constant changes in the channels and the sandbanks. For example, charts still in use show the Pátkund channel (which branches off from the Mahánadí about fifteen miles higher up) as debouching through a fair entrance of its own into the sea. But this entrance is reported by the local authorities as now closed by a high ridge of sand; and the river thus shut out from the ocean runs parallel to the coast in a north-easterly direction, till it re-enters the Mahánadí near its mouth.

FALSE POINT, on the north of the Mahánadí estuary, consists of an anchorage land-locked by islands and sandbanks, with two channels navigable inland. It derives its name from the circumstance that ships proceeding northward frequently mistook it for Point Palmyras, a degree farther north. It lies in north latitude 20° 20′ and east longitude 86° 47′, and was reported by the Famine Commissioners in 1867 to be the best harbour on the coast of India from the Húglí to Bombay. A lighthouse is situated on the point which screens it from the southern monsoon, in latitude 20° 19′ 52″ N. and longitude 86° 46′ 57″ E.; and the harbour is protected by two sandy reefs, Long Island and Dowdeswell Island, the latter being a long narrow spit of sand, which completely land-locks the anchorage. Point Reddie, at the extremity of this latter island, protects the entrance. The harbour is safe and roomy, and the

channel properly buoyed. I have very carefully examined the harbour on two occasions, both from the sea and from the inland; and so far as I could learn, the channels have of late deepened rather than shallowed. In February 1870, I lay far enough in to be perfectly well protected in a steamer drawing twenty-one feet. At the time of the Survey in October 1868, twenty-five feet of water were given as the *reduced* minimum depth at A buoy, the channel gradually shallowing to a depth of twenty feet, about five hundred yards north-west of B buoy. At a reduced minimum depth of twenty feet, good protection can be obtained from the south-west monsoon; but by proceeding inwards to B or C buoys, with a reduced minimum depth of fourteen and sixteen feet respectively, the protection is as much as need be desired. The channel then gradually shallows through fifteen to thirteen feet at lowest tide, which is reached two hundred and fifty yards north-west of D buoy, and here the protection is absolute. Navigators ought to procure the recent Survey by Captain Harris of the Marine Department; on which, however, Colonel Rundall's note may also be consulted, by persons wishing to make themselves perfectly acquainted with the capabilities of the Mahánadí estuary and channels. A soft mud bottom averts the dangers incident to vessels taking the ground. The Survey Report (dated 10th May 1870) recommends that a vessel making the port should give Point Reddie a berth of half a mile, steering up midway between the buoys. Should the buoys be gone, she should keep False Point Lighthouse midway between the two small beacons on Plowden's Island. Vessels drawing eighteen to twenty feet should anchor near B and C buoys, unless they wish to discharge cargo, when they may with perfect safety run in till they ground on the soft olive-coloured mud. Formerly, no vessel approached the coast during the summer monsoon, but now the port is open throughout the year, and ships of large tonnage can lie in safety in all weathers. Inside of Dowdeswell Island lies Plowden Island, for the most part a low jungly swamp, but with a limited extent of high ground suitable for building purposes. The island is also provided with wells from which good drinking water may be obtained.

INLAND CHANNELS FROM FALSE POINT.—Two separate channels lead inland from the anchorage—the Jambu river on the north, and on the south the Bákud creek, a short, deep branch of the Mahánadí. Unfortunately for inland navigation by ships, bars of sand intervene

between the anchorage and these channels, and, except at high water, block the entrance to both. At full tide, cargo-boats and steamers enter with ease.

THE JAMBU CHANNEL.—The Jambu bar stretches for about three-quarters of a mile, and has one foot of water at lowest tide; after passing which, a channel of two feet, gradually deepening to ten, is obtained in the lowest tide. Higher up, the depth increases to eighteen feet, and a channel of not less than ten feet may be relied on as high up as Deulpárá, some twelve or fifteen miles from the mouth. The navigation is rendered difficult by the winding of the stream, especially during the freshes, when a very strong current comes down. Nor is the channel so wide as the second route presently to be described; and towards Deulpárá it shoals and narrows, to an extent that marks this point as the safe limit of navigation for heavily-laden country boats. The creek here unites with the Nún river, near the entrance of the Kendrápárá Canal at Mársághái. This entire route passes through a waste and often desolated country. During floods, the whole tract to the east or coast side is one large sea or jungle-covered swamp. It belonged to the Kujang Rájá, an ancient family crushed by debt, and unable to do anything towards the protection of his territory from the rivers. It has recently been purchased by the Maháráját of Bardwán, and it is hoped that the wealth and public spirit of this nobleman will inaugurate a new era in those parts.

THE BAKUD, or Southern Channel, is the most direct for navigation inland. A bar of about a thousand yards in length lies across its mouth, and is dry during the last quarter of the ebb. After passing it, a channel of two feet is obtained, gradually deepening to eight, then shoaling again to two, and eventually deepening into an excellent channel of from fourteen to twenty feet, up to its junction with the Mahánadí, a distance of about sixteen miles. It was in this creek that Government established its rice depot, for throwing supplies into the Province during the famine of 1866. Eight miles above its bifurcation from the Mahánadí is the junction of the latter river with the Nún. Here a choice of two routes will soon be offered,—one lying up the Nún to Mársághái, the entrance to the Kendrápárá Canal; while the other will proceed by the Mahánadí to the Táldandá Canal, at present under construction. The only route yet available, however, is the former one, *via* the Nún, which has an excellent channel of twelve feet as far as Baulpárá, where it takes a turn

forming a shoal of about a thousand yards, with a narrow channel with eleven to fifteen feet of water. This depth can be relied upon until within two miles of Mársághái, the entrance to the canal, where the river wheels sharply round to the north, and shallows fast. This is the safe limit of navigation for river steamers and cargo-boats, but the latter can proceed higher up by catching the flood tide.

Besides the two inland routes above mentioned, several tidal creeks run along the coast, and connect False Point anchorage with the Dhámrá and Bráhmaní rivers on the north, and with the Devi on the south. Such channels are generally very winding and narrow. They are available, however, for country boats all the year round.

History of False Point Harbour.—Till within the last fifteen years, False Point anchorage was little known, and almost unused. Although but two days by steamboat from Calcutta, no regular communication existed; no important trade was carried on; and the exports, consisting chiefly of rice, were entirely in the hands of a few native shipmasters from the Madras coast. Horsburgh, in his Sailing Directions, dismisses it with a brief, and, so far as regards the depth of water, an inaccurate notice. In fact, he treats of it as a beacon rather than as a harbour. The port was opened in 1860. About that year the newly started East Indian Irrigation Company perceived its capabilities for the importation of stores, and an enterprising French firm in Calcutta shortly afterwards established an agency for the export of rice. The arguments against False Point seemed, however, at that time to be conclusive. It was represented to be a fever-stricken spot, with no villages or local population, and with no practicable channels inland. But Colonel Rundall, with Mr. Faulkener, carefully investigated its capabilities, and strongly insisted upon the adoption of it as a harbour. In 1862, two thousand tons of material for the canals were landed direct from England, from a ship of about twelve hundred tons and a barque of about eight hundred tons burden; the vessels being safely lodged within the anchorage, and discharging without loss of any sort. But it was during the year of the great Orissa famine, when Government was anxiously exploring every means of throwing supplies into the Province, that the capabilities of False Point were first publicly appreciated. The formation of the new canals has been the making of the port. False Point is now connected with the capital city of

the Province by means of the Kendrápárá Canal, which reaches from Cuttack for a distance of forty-two and a half miles, till it drops into tidal waters at Márságháí, twenty-three miles from the harbour. Formerly, a traveller landing at False Point found himself as far from Cuttack as if he had never started from Calcutta. Its isolated and jungly situation, and the long, tedious boat-route inland, through dense forests and across malarious swamps, rendered it impracticable for goods or passenger traffic. But now that the difficult upper half of the journey can be conveniently and rapidly done by a canal, and that the lower half is accurately surveyed, False Point has grown into the entrepôt for the import and export trade of Orissa. A small Government steamer plies between the harbour and the entrance to the canal at Márságháí, from which point the passage is comfortable and rapid, compared with the old uncertain route round by the rivers. An extension of the canal from Márságháí for fifteen miles farther towards False Point is in course of construction, and will considerably further facilitate communications. A harbour-master and Superintendent of Customs have been appointed at False Point. The British Indian General Steam Navigation Company make the place a regular port of call. It is also visited by French ships from Mauritius, which take rice and oil-seeds for that place, and for Havre, Bordeaux, and other ports in France. I was informed by people on the spot that the malarial character of the region has to a large extent disappeared; and the harbour-master, who, as lighthouse keeper, has had many years' experience of the locality, assured me that he had found False Point a healthy station. To the north of the entrance of the Jambu is a large tract of high sandy land, suitable for building purposes; and during the hot months, when the breeze is off the sea, this site might be made a salubrious residence. It is easily accessible from the anchorage. At the end of the rains, however, new-comers would have to make up their minds, by acclimatization, to the usual malarial fever, common to the whole coast of Bengal and Burmah.

TRADE OF FALSE POINT.—The following tabular statement exhibits the import and export trade of False Point for the fifteen years ending 1874-75, from the opening of the port in 1860. The figures for the first nine years were furnished to me by the port authorities in 1870; those for the last six years are taken from the Bengal *Statistical Reporter* for December 1875. From this table it will be seen that during the twelve years of which complete

returns have been furnished, the value of the trade of False Point has increased from £51,921 to £261,212, or by upwards of five times, and the number of vessels visiting the port, from 16 to 110.

IMPORT AND EXPORT TRADE OF FALSE POINT, FROM 1860-61 TO 1874-75.

YEAR	Number of Vessels entered.	Tonnage.	Value of Imports.	Value of Exports.	Total value of Trade.
			£	£	£
1860-61,	4	2,830	No return.	6,759	...
1861-62,	10	7,756	Do.	24,657	...
1862-63,	6	4,016	Do.	17,802	...
1863-64,	16	8,681	33,093	18,828	51,921
1864-65,	16	12,834	4,446	25,634	30,080
1865-66,	12	8,055	1,550	8,225	9,775
1866-67,	51	33,862	184,859	*nil.*	184,859
1867-68,	29	33,023	157,044	54	157,098
1868-69,	15	13,574	1,710	1,920	3,630
1869-70,	71	41,741	31,076	18,673	49,749
1870-71,	105	59,744	103,235	66,975	170,210
1871-72,	86	72,525	90,013	47,570	137,583
1872-73,	75	69,999	84,954	82,142	167,096
1873-74,	106	86,597	114,289	106,043	220,332
1874-75,	110	118,375	91,165	170,047	261,212

The *bona fide* trade of False Point is chiefly with other Indian harbours, though the port is used as the landing-place for stores and material from England for the irrigation works, and these are sometimes shipped from Calcutta. As already stated, too, an export trade in rice and oil-seeds has lately sprung up with the Mauritius and various French ports.

FUTURE CAPABILITIES AND IMPROVEMENTS.—False Point, therefore, forms a harbour well marked by a lighthouse, provided with drinking water and building ground; possessing direct routes inland to Cuttack, the capital of the Province; and furnishing absolute protection against the south-west monsoon. The existence of the bars across the mouths of the inland routes matters little, as by waiting for the tide, plenty of water is always obtained for the class of cargo-boats or steamers that ply on Indian rivers. There can be no doubt that the Commissioners of 1867 were right in reporting False Point to be the best harbour on the whole Indian Peninsula between the Húglí and Bombay. It affords a guarantee against that absolute absence of food throughout Orissa which followed the

failure of the crops in 1866, and the mitigation of such a calamity becomes simply a question of expense and of machinery for internal distribution. Government is keenly alive to the necessity of keeping the port open, and checking any tendency which it may evince to deterioration. On two occasions, when visiting the harbour, the expediency of a dredging machine and of assisting the channels to scour by means of spurs, was pressed upon me by separate and competent persons. This and similar questions, however, may safely be left to the scientific surveyors. Government perfectly appreciates the importance of creating a really trustworthy port for Orissa; and the Marine Department has, during the past few years, devoted such close attention to False Point harbour, and is at present so anxiously interested in its welfare, that navigators may rest assured that whatever is necessary will be done.

THE BRAHMANI ESTUARIES.—The river system of Cuttack District on the north of the Mahánadí consists of the network of channels formed by the Bráhmaní and Baitaraní, which, after infinite winding and interlacing, eventually reunite, and find their way into the sea by two great outlets at Point Palmyras. The southern of these is the Maipárá river, with its tidal creek, the Bánsgarh, which runs southward almost parallel to the coast till it joins the sea about six miles north of False Point harbour. The mouth of the Maipárá presents the usual obstacles of bars and high surf; and from its position on the south of Palmyras promontory, it is inadequately protected from the monsoon. Between the months of November and March this last objection does not apply, and native craft from the Madras coast frequent it during the cold weather for the purchase of rice.

THE DHAMRA, or northern exit of the united streams of the Bráhmaní, Kharsuá, and Baitaraní, forms the boundary-line between the Districts of Cuttack and Balasor, but is within the jurisdiction of the latter District. The latest Survey Report (dated 10th May 1870) places the Dhámrá first among the navigable rivers of Orissa. Its entrance is marked by the Kaniká buoy in twenty-one feet *reduced*, and by Shortt's Tripod beacon on the extreme north-east dry portion of Point Palmyras Reef. The entrance has greatly improved since 1866. The old outer bar with but nine feet of water remains, but a second outer channel with ten feet at lowest tide has opened about a mile to the south. From this to the inner bar no material change in the depth has taken place; but the inner bar, although improved of late, is constantly liable to alterations. In 1859, twelve feet were

to be found on this bar; in 1866, only three; and in 1870, eight. The water rapidly shoals from a minimum depth of twenty-one feet at the Kaniká buoy to six feet on the Central Sand. On the north of this, however, the new charts show a channel with a minimum of nine feet; and on the south there is another passage with water nowhere less than ten feet in depth, and in most places from thirteen to sixteen feet. Once through these passages, the channels reunite, and proceed inland with from twelve to twenty feet of water, to the Kaniká iron beacon, where twenty-nine feet may be obtained. Proceeding nearly due west, the water again shoals from twenty to eight feet; and again gradually deepens till a depth of thirty feet is reached in the channel to the north of the eastern extremity of Kálíbhanj Island. After this, the difficulties incident to vessels going up are simply those of river navigation. Ships which can get within the southern outer channel, with its minimum depth of ten feet at low tide, find absolute protection from the monsoon. Notwithstanding its excellence as a harbour, the Dhámrá, owing to its distance from Cuttack or any large centre of industry or population, was not, up to 1871, so much frequented by European craft as False Point; but larger numbers of native vessels resort to it in connection with the Madras rice trade. At one time, indeed, it was contemplated to select the Dhámrá as the channel by which the whole canal system of Orissa should debouch upon the sea. This was before the formation of the East India Irrigation Company, which, after a most careful inquiry, wisely decided upon False Point as their basis of operations on the seaboard. Horsburgh treats Point Palmyras, at the mouth of the Dhámrá, only as a beacon for making the Húglí, and cautions vessels with regard to the necessity of hauling out into twelve or fourteen fathoms if they sight the eastern limit of the bank. He gives the rise of tide as from ten to twelve feet in the springs, and from seven to eight feet in the neaps. The latest Survey Report (dated 13th May 1870) returns the tidal range at ten feet, with variations from a minimum of six feet ten inches to a maximum of ten and a half feet. It must be remembered that the depths in the channels given above are the reduced minimum at the lowest possible tide, so that the harbour, like all others along the Orissa coast, is practically available during flood tide to native craft drawing considerably more water than that which I have mentioned. Brigs and Madras traders, drawing from ten to even eighteen feet, frequent the harbour with perfect safety.

The Dhámrá harbour, which was declared a port by Government Notification, No. 877, dated 18th May 1858, although forming an estuary of the river system of Cuttack District, belongs, as already stated, to the jurisdiction of Balasor, the village of Dhámrá being on the north or Balasor bank of the estuary. I reserve, therefore, a statement of its trade, etc, for the Statistical Account of Balasor District.

DISTRIBUTION OF WATER SUPPLY.—Owing to a well-known peculiarity of alluvial rivers, the water which is poured down upon the plains at the three gorges in the western hills, which have been already described, greatly exceeds the volume which the lower channels are able to carry off. The rivers issue from the hills heavily laden with silt, which they deposit when their velocity is checked by the dead level of the delta. Their beds thus gradually shallow, and prove more and more unable to carry off the floods to the sea, so that every year a large quantity of surplus water pours over the banks. In 1858, Captain Harris, after a series of most careful investigations, arrived at the following conclusions with regard to the Mahánadí. During high floods, 1,800,000 cubic feet of water pour every second through the Naráj gorge, seven miles above Cuttack city, while the total distributaries and channels, half-way between that point and the Bay of Bengal, only afford accommodation for 897,449 cubic feet, or less than one-half. The remaining half would infallibly devastate the surrounding country were it not for the embankments; but even with embankments, a very large proportion of it every year pours down on the rice fields. During time of flood, about 250,000 cubic feet per second, or from one-seventh to one-eighth of the total, strikes into Puri District by means of the Koyákhái. The remaining six-sevenths, or, in round numbers, a million and a half of cubic feet, pour every second, through the Kátjuri, Birúpá, and Mahánadí proper, into Cuttack District. To get rid of this vast volume of water, the Puri rivers have only the means of carrying off 111,755 cubic feet per second, while all the distributaries in Cuttack District can only dispose of 788,694 cubic feet. For the portion which passes into Puri *viâ* the Koyákhái, see Statistical Account of Puri District.

CAPACITY OF CUTTACK RIVERS AT A SECTION HALF-WAY BETWEEN CUTTACK CITY AND THE SEA.

Names of Rivers.	Fall per Mile at Point of Section.	Mean Depth of Section in Feet.	Calculated Velocity by Etelwyn's Formula, in Feet per Second.	Calculated Discharge per Second, in Cubic Feet.
Little Devi,	1·20 feet.	18 87	6·06	34,306
Large Devi,	1·20 ,,	29·55	7·58	148,434
Alanka,	1·00 ,,	16·60	5·18	23,641
Mahánadí,	1·20 ,,	15·14	5·40	243,589
Páiká,	1·25 ,,	17·52	5·96	113,836
Chitartalá,	1·30 ,,	14·23	5·47	83,653
Nún,	1·60 ,,	20·71	7·33	107,047
Do., Water-course adjoining,	...	...	4·75	10,294
Birúpá,	·65 ,,	10·19	3·28	23,895
	Average, 1·17	Average, 17·85	Average, 5·66	Ttl. 788,694

CONTROL OF THE WATER SUPPLY.—The great problem in Orissa is how to prevent the rivers from destroying the crops during the rains, and how to husband them for agriculture and for commerce during the dry season. Five great rivers collect the drainage of 63,350 square miles of the hill country towards Central India, and dash down their concentrated floods upon the 5000 square miles of the Cuttack and Balasor delta. Besides its own rainfall of 54 inches a year, the level strip between the mountains and the sea has to find an exit for the drainage of a territory more than

Names of Rivers	Catchment Basin in Square Miles.	Maximum Discharge in time of Flood.	Average Cold-weather Discharge.	Minimum Discharge in May.
		Cubic Feet.	Cubic Feet	Cubic Feet
Mahánadí,	45,000	1,800,000	3000	750
Bráhmani,	9,000	400,000	1000	380
Baitaraní,	3,100	200,000	500	180
Sálandí,	250	60,000	260	...
Subarnarekhá,	6,000	300,000	600	380
	63,350	2,760 000	5360	1690

twelve times its own area. In the rainy season, the rivers devastate the delta, while, like other Indian streams, they fail to yield a trustworthy supply in summer. An enormous mass of water, aggregating 2,760,000 cubic feet per second, is thrown down in time of flood; while in hot weather, the total supply dwindles to 1690 cubic feet per second, as shown by the preceding table.

In spite of this enormous water supply during the rainy season, Orissa has from time immemorial been visited by terrible famines from drought. But within the last twenty-five years there has been a growing conviction that it is the duty of Government to take measures against the recurrence of these calamities. Nature showers down plenty of water; it is for man to husband and to control the supply. The first work in this direction was at Naráj, about seven miles from Cuttack city, where the Mahánadí debouches upon the delta and forms its first bifurcation. The work consisted of a spur sent out from the southern bank, with a view to diverting a portion of the excess flood which poured down the Koyákhái into Purí District. It dates from the year 1858; and the Irrigation and Canal Company, when it started four years later, recognised the necessity of commencing the regulation of the river at this point. Instead of a spur for the local purpose of checking the Purí water supply, the Company constructed an enormous masonry weir across the river bed. It is to be connected, eventually, with a line of embankments which runs down the delta head, in order to prevent the waters of the northern branch of the Mahánadí from forcing their way across the level sands into its southern branch—the Koyákhái. The effect of these works, therefore, will be to regulate the southern branch of the Mahánadí at its point of bifurcation. The weir is furnished with sluice gates, and to a certain extent it has diverted the floods which used to pour southward into Purí District; while at the same time it secures a due supply for the northern branches of the Mahánadí, and for the canals that proceed northward and eastward from them.

THE ORISSA CANAL SYSTEM.—The East Indian Irrigation Company offered to undertake the execution of the necessary works for the irrigation of Orissa, and the protection of the country from floods, with an unguaranteed capital. This proposal was accepted by the Government. Colonel Rundall, an eminent Madras engineer, now Inspector-General of Irrigation Works, was allowed to act for the Company as Chief Engineer for a period of five years, and the

works were commenced in 1862. One of the most serious evils from which Orissa suffered at that time was its isolation. The one little harbour at False Point was scarcely ever visited, there was no proper survey of the coast, and the road to Calcutta was barely passable during six months in the year. The leading objects in projecting the works were—(1) to prevent the recurrence of drought, (2) to protect the harvest from floods, and (3) to open up communications. The region over which the operations extend reaches along the coast from the Chilká Lake in the south of Purí District to the Sálandí in Balasor, and is traversed by the deltaic mouths of four rivers, viz. the Mahánadí, Bráhmaní, Baitaraní, and Sálandí; while immediately above the point where these rivers begin to overflow their banks, the country begins to slope up steeply to the hills. The limits of the area within which the works should be confined are thus clearly marked out. This area is perfectly flat, and the staple crop is rice, grown during the monsoon months. The amount of rainfall averages 54 inches; but as the whole dependence is on the monsoon crops, it is not the quantity of rain, but the time of its fall that is all-important. If the rains cease early, a famine is inevitable. In 1865 the rains ceased on September 14th, and the crops consequently perished.

The Orissa Canals, therefore, are, in the first place, intended to regulate the water supply for irrigation; and secondly, to utilize it for navigation and commerce. From the point at which the Mahánadí pours through the Naráj gorge upon the plains, the fall averages eighteen inches per mile across the delta to the sea. In the Godávarí District in Madras, the slope is said by the engineers to be only about one foot per mile; but the fall in Orissa, as also in the case of the Godávarí, is easily overcome by locks. The first thing to be effected was to secure a uniform and a trustworthy supply at the head of the delta. To this end, a massive masonry weir 3000 feet long has been erected across the mouth of the Kátjurí, the southern bifurcation of the Mahánadí; another enormous weir, 6400 feet long, across the Mahánadí proper at Jobrá; and a third, 1980 feet long, across the Birúpá at Chaudwár. The two first of these weirs are twelve and a half feet, and the third nine feet high. Each of the three branches into which the parent stream splits at the delta head is, therefore, regulated by a weir. These works are pierced with two sets of scouring sluices, one of which is on an improved self-raising principle. Their objects being to prevent the

accumulation of sand in the river bed, and to secure a supply of water for the canals, the sluices are left open during the flood season, and closed as the river subsides. Of the four canals which form the Orissa irrigation system, two take off from the Birúpá weir, and one, with its branch, from the Mahánadí weir.

The East Indian Irrigation Company, however, were unable to carry out their project to completion; and on the 31st December 1868 the Government took over the whole canal works from the Company at a cost of £941,368, since which time the gradual prosecution of the Orissa scheme to completion has been sanctioned. On the 31st March 1871 the capital account, including the original price paid to the Company, amounted to £1,274,822; and four years later, on the 31st March 1875, to £1,551,951, exclusive of interest.

The canals thus taken over from the Company, and since completed, or carried to an advanced stage of construction, are four in number, viz. (1) The High-Level Canal, (2) the Kendrápárá Canal, (3) the Táldandá Canal, and (4) the Máchhgáon Canal, with their respective distributaries.

The High-Level Canal was designed to provide a navigable trade-route between Cuttack and Calcutta, and also to irrigate the country through which it passes. It starts from above the left flank of the weir across the Birúpá, one mile below the departure of that river from the main stream of the Mahánadí. It runs thence along the foot of the hills, northwards through Cuttack and Balasor Districts; and, as originally intended, was to have been carried across the Bengal District of Midnapur, till it debouched on the Húglí river at Ulubáriá, below Calcutta—a total distance from its starting-point of 230 miles. The section between Midnapur town and Ulubáriá, 53 miles in length, was opened throughout for traffic in 1873; but this is now regarded as an independent work, distinct from the Orissa canal system. A full description of the Midnapur Canal will be found in my Statistical Account of that District (vol. iii. pp. 29-36).

In its course through Orissa, the High-Level Canal will irrigate over half a million acres between Cuttack city and Balasor alone. Of these, 89,000 are situated along its first section, *i.e.* between its starting-point at Cuttack and the Bráhmaní river—a tract which lies high, and is subject to constant scarcity from drought. The second section will irrigate a total area of 230,000 acres between the Bráh-

maní and the Baitaraní rivers, crossing the Kharsuá on its route. The third section will irrigate the land between the Baitaraní and the Sálandí, about 100,000 acres; and the fourth section, between that river and Balasor, 153,000 acres more. Total, 572,000 acres. The first section, namely, from Cuttack city to the river Bráhmaní, thirty-two miles in length, was fully opened in 1872-73. This section was designed to irrigate 89,000 acres between the Birúpá and the Bráhmaní, by means of seventeen distributary channels differing in capacity, but aggregating 113 miles in length. The width of the water surface in these distributaries varies from ten to twenty-six feet, the depth from two to four feet, and the fall from six to eighteen inches per mile. The land lying between the Birúpá and Genguti rivers will be irrigated by means of a syphon, carried under the bed of the latter stream. The Bengal Administration Report for 1874-75 (p. 306) thus describes the progress made in connection with the irrigation channels, etc. in connection with this section of the canal:—'Twenty-one distributaries, measuring ninety-nine miles, and capable of watering 73,190 acres, have been completed. Ninety-two out of 110 masonry works proposed have been finished, together with thirteen miles of village channels.'

The remaining sections now in course of construction are from the Bráhmaní to the Baitaraní, and from thence to the Sálandí in Balasor, a total distance of about thirty miles. The canal will be carried over the Bráhmaní and Baitaraní rivers by means of weirs; the works are being vigorously pushed on, so as to have the canal opened as far as the Sálandi during the course of the present year (1876). The state of the operations in 1875 is thus described in the Bengal Administration Report for 1874-75:—'The earth-work and several masonry works in sections 2 and 3 of the High-Level Canal are nearly completed. The Bráhmaní weir, 4000 feet long, has been raised two feet in height for a distance of 1470 feet. The second wall has been raised to full height throughout its entire length, and a third wall has been built on masonry (*páká*) wells, where two of the front line of wells were injured by last year's floods. The Patiyá weir has been extended in breadth from twenty to seventy feet, the north abutment and weir wall have been built, and the junction wall has been raised three feet. The Baitaraní weir left abutment has been raised from eight feet to nineteen feet in height, the floor has been completed, and the weir wall raised two and a half feet high. Both abutments and the weir wall of the Bará

weir have been built, and the floor of the sluices finished.' Beyond the Sálandí, works have not been commenced; but in 1875 a survey for the extension of the canal to Balasor town was in course of being conducted.

The weir across the Birúpá, from which the canal starts, is 1980 feet from abutment to abutment. The crest of its breast-wall is 63·5 feet above mean sea-level, or eight feet above the bed of the Birúpá. It has scouring sluices at each end, either set being capable of discharging, during six months of the year, the whole flow of the Birúpá. While the High-Level Canal starts from the left flank of this work, the Kendrápárá Canal starts from its right; and the current produced by the scouring sluices at each of its extremities keeps the mouths of both the canals free from silt. The High-Level Canal skirts the high grounds to the west of the Calcutta road for twenty-three miles, in which are four and a half miles of rock cutting, as far as the village of Neulpur. Here it leaves the road, and comes upon the Bráhmaní in its twenty-seventh mile, whence it keeps along the south bank of the river as far as the village of Jahánpur, where it will cross the Bráhmaní by means of a weir. The dimensions of the canal in this section will ultimately be as follow:—120 feet wide at water-line, with a maximum depth of eight feet; side-slopes two to one, and a fall of one inch per mile, conveying 675 cubic feet per second. The head sluices at the Birúpá weir are capable of supplying 675 cubic feet of water per second, when there is a depth upon the sill of eight feet. The bed of the Bráhmaní is eight feet below that of the Mahánadí at the respective weirs, and this difference is overcome by a lift-lock in the twenty-seventh mile; while flood-gates are provided at the thirty-sixth mile, to prevent the freshes of the Bráhmaní during time of flood from backing up into the lower reaches of the canal.

The Kendrapara Canal starts from the right flank of the Birúpá weir, and proceeds along the north or left bank of the Mahánadí and its offshoots, the Chitartalá and the Nún, nearly due east to Mársághái, twenty-three miles from False Point. Its route lies along the high ground on the north or left bank of the Mahánadí till about the eighth mile, at which point the Chitartalá branch diverges to the northward from the great river. The canal thenceforth keeps along the north bank of the Chitartalá, till near the eighteenth milestone. At this point the Nún diverges to the northward from the Chitartalá, and the canal proceeds along the

north bank of the Nún till it drops into tidal waters at Márságháí, after a total length of forty-two and a half miles. The Kendrápárá Canal from Cuttack to Márságháí was opened on the 29th May 1869. A branch canal, taking off from the north or left bank of the Kendrápárá Canal, is in course of construction, available both for navigation and irrigation, passing along the right banks of the Birúpá and Bráhmaní, and falling into the latter river at Patámundáí, a village near the Dhámrá estuary, where a considerable export trade in grain is carried on. An extension of the Kendrápárá Canal from Márságháí towards the sea coast, for a distance of fifteen miles, was sanctioned in 1872-73, in order to improve the communication with False Point harbour. By the end of 1874-75, one-third of the earth-work and part of the masonry-work on this extension had been completed.

The Kendrápárá Canal proper is designed to irrigate 385 square miles of country. Of this large tract, less than two-thirds will require simultaneous irrigation, and the canal will therefore convey water for only 234 square miles, or 150,000 acres. During 1874-75, 56 miles of distributary channels from this canal were constructed, making a total of 308 miles open at the end of March 1875, from which 100,000 acres can be irrigated. Distributary No. 14, called the Gobrí Canal, is being made a navigable channel, for the purpose of facilitating communication between Cuttack and the port of Chándbálí in Balasor. By the end of 1874-75 the earth-work in the first reach was nearly completed, and fair progress had been made with the remainder. The Patámundáí branch canal is intended to irrigate 113,000 acres. The branch canal from Márságháí towards False Point is intended for navigation only.

The head lock of the Kendrápárá Canal at the Birúpá weir is 100 feet from sill to sill, and 17 feet wide. The sills are 59·5 feet above sea-level, and the gates 18½ feet in height. The canal is divided into seven reaches, with a width at water-line varying from 75 to 160 feet, a uniform depth of 7 feet, a fall ranging from 0 to 6 inches per mile, and a minimum capacity of discharge varying in the different reaches from 340 to 740 cubic feet per second. This is the discharge available for the cold-weather crops, when the water above the weir is maintained at only 64·5 feet above mean sea-level, giving but five feet of water in the canal. During the rains, the canal's capacity of discharge varies in its different reaches from 340 to 2000 cubic feet per second. The total fall of

the canal from Jobrá to Márságháí is sixty-four feet, the levels being adjusted by means of eight locks, the last of which is a tidal lock at Márságháí, with a fall of ten feet, the upper sill being six feet above mean sea-level, and the lower sill four feet below. At low water, spring tides, there will always be three and a half feet of water on the lower sill. At Mutri, in the thirty-seventh mile, there is an escape or waste weir capable of discharging 360 cubic feet per second. Six syphon culverts have been led underneath the canal, and four traffic bridges, in addition to the lock bridges, have been constructed across it.

THE TALDANDA CANAL will connect the city of Cuttack with the main branch of the Mahánadí within tidal range. It is intended both for navigation and for irrigation; total length, 52 miles. Of these, the first seven, or from Cuttack to Bírbátí, were filled with water on 2d February 1870, and the second or Jayapur section subsequently. The lower reaches are not yet finished. The canal, when completed, will end at Sámágol on the Mahánadí, about eight miles in a direct line from the sea, but considerably farther by the river route. The canal starts from the right flank of the Mahánadí weir at Jobrá, skirts the east side of the town of Cuttack for a mile and a half, then turns eastward and runs midway between the Kátjurí and the Mahánadí for four miles; thence to Bírbátí it keeps nearly parallel with the Mahánadí, at a distance of from half a mile to one mile. Bírbátí is reached in the seventh mile; and here it throws out a branch canal to Máchhgáon at the mouth of the Devi river. Meanwhile the parent canal keeps along the high ground on the southern bank of the Mahánadí, until it reaches its destination at Sámágol within tidal range.

The Táldandá Canal, in its first reach to Bírbátí, has a bottom width of sixty-four feet, with slopes of two to one, and a fall of six inches to the mile. With a maximum depth of eight feet of water, the discharge is calculated at 1460 cubic feet per second, half of which will be carried off by the Máchhgáon Canal, leaving 730 feet per second to the lower reaches of the parent canal. In addition to the bridge at the head lock, three others span the canal in its first section. The Táldandá Canal, with its branch the Máchhgáon, is designed to irrigate 155,000 acres of the central delta. Many of the distributaries are now completed, the total irrigable area at the end of 1874-75 being 33,500 acres.

THE MACHHGAON CANAL will connect Cuttack with the mouth

of the Devi river. It starts from the Táldandá Canal at Bírbáti, and will be supplied with half of the maximum discharge of the parent channel, or 730 cubic feet per second. It was opened in the first half of 1871 as far as Singápur, to which point its route lies along the high ground on the northern bank of the Kátjuri. At Singápur it will be carried across the branch of the Kátjuri which falls into the Mahánadí at Jayapur; and the canal will eventually end at Máchhgáon on the Devi river within tidal limits, and eight miles in a direct line from the sea. With regard to this estuary, see the foregoing description of the Devi in this Statistical Account. The total length of the canal will be 53 miles, nearly the whole of which is now constructed. Seventy-seven miles of irrigation distributaries were also completed at the end of 1874-75.

General View of the Orissa Canals.—While, therefore, the now completed portion of the High-Level Canal starts northward from the Birúpá, and provides a navigable channel between that river and the Bráhmani, with irrigation for the upland country along the foot of the hills, the Kendrápárá Canal proceeds due east along the high banks of the Chitartalá, etc., and supplies water to the lower level of the delta. It irrigates the southern edge of the tract between the Mahánadí (with its subsequent distributaries, the Chitartalá and the Nún) and the Birúpá (with its continuation the Bráhmani). The Táldandá and the Máchhgáon Canals will deal with that part of the delta which lies between the Mahánadí and the Kátjuri; the Táldandá Canal supplying irrigation for the northern edge of this intermediate tract, and the Máchhgáon Canal providing for the southern edge. All the canals keep on high levels. In the case of the High-Level Canal, the channel runs along the uplands at the foot of the hills. In the case of the other three, which are strictly speaking delta canals, the requisite elevation is obtained by keeping their courses along the banks of the rivers, which, as already explained, are always higher than the intermediate alluvial tracts.

Irrigation Capabilities.—The Orissa canals, when completed, are designed to irrigate a total of 1,600,000 acres. The people, however, are slow and averse to change; and hitherto, even the present available supply is out of all proportion to the demand, and there is a disposition only to resort to irrigation for ordinary crops when the rainfall fails. The Orissa cultivator has been accustomed to use irrigation only for the more costly sort of crops, such as *pán*-leaf, sugar-cane, tobacco, and cotton. For such crops, a field is gene-

rally selected which has the command of a natural water-course; and the highest form of irrigation known in Orissa consists in throwing water, by means of hollow palm trees or basket scoops, from a tank or dammed-up stream, on to the fields. The East India Irrigation Company fixed the rates for supplying water at Rs. 5 or ten shillings an acre. This rate proved to be too high, and a graduated scale was afterwards introduced, by which leases for large areas were offered at reduced rates. Even this failed to induce the cultivators to buy the water; and a further concession was made, by which the separate husbandmen in a village might combine to take a general lease from their aggregate lands at the reduced rates. Much confusion and many abuses followed, and practically the Company's rates were reduced to a uniform charge of Rs. 2. 8. 0 or five shillings an acre. The first year in which the cultivators availed themselves of canal irrigation was 1866–67, when leases were executed for 667 acres at a total charge of £252. Of this, however, only £62 could be collected, and the rest had to be written off as a bad debt. Next year, 1867–68, leases were executed for 1842 acres, at an aggregate charge of £366; but only £175 could be collected, and the balance had again to be written off. The remissions of these two years were rendered necessary partly by the unfinished state of the works, which disabled the Company from performing its share of the contract; partly by the inexperience of the Government officers; and partly by disputes on the part of the cultivators touching the validity of the leases. A large area was irrigated by stealth, and the smallness of the returns was chiefly owing to the difficulties incident to introducing anything new in Orissa. In 1868–69 a drought at the end of the rains awoke the fears of the husbandmen, and water was taken for 9378 acres at an aggregate charge of £2288. The popular apprehensions culminated in a panic; and the demand for water became so urgent that it was found impossible to comply with the usual forms, and irrigation was granted in many cases without leases. In others, the husbandmen appropriated the water wholesale on their own account. However, after some opposition, the land which had actually received water was measured, and the people paid on the whole very fairly for what they took. In the following year, 1870–71, a long-protracted drought again aroused the cultivators to the folly of neglecting irrigation. Until far on in October, it seemed that another famine in Orissa was inevitable. Still, the rate of Rs. 2. 8. 0 or five shillings an acre proved too high; and it

was not till the Commissioner, Mr. Ravenshaw, by insisting upon the terrible risks that the Province ran, induced Government to temporarily bring down the rate to R. 1 or two shillings an acre, that water was taken on a great scale. Between 98,000 and 100,000 acres were immediately put under irrigation in Orissa and Midnapur; and even this amount of land, although insignificant compared with the future capabilities of the canal, would have sufficed to take the extreme edge off a famine.

Even this lesson failed to have any permanent effect in extending irrigation. With the passing away of the immediate danger, the demand for water at once fell off; and in 1871-72 the total irrigated area was estimated at 28,615 acres, the really assessable area, however, being considerably less. It became evident that there were really no signs of a voluntary general adoption of irrigation by the people under the rules then existing; the success of the undertaking, under any system which left it optional with the cultivators to take the water or to refuse it, began to be doubted, and compulsory rating was recommended by some authorities as the only way of dealing with the case. This view was strongly urged on Government by the Commissioner of Orissa, Mr. Ravenshaw, and supported by Mr. Schalch, the senior member of the Board of Revenue. The opposite side of the question was maintained by the Collector of Cuttack, who urged that the voluntary system had not as yet had a fair trial; that its failure was due solely to mismanagement, and not to any intrinsic defects or unsuitability; and that the causes of its ill-success were patent, viz. an entire absence of fixity of rates and of any uniform principle of sale of water and assessment, and an unfortunate attempt to force irrigation in advance of proper means of distributing the water, and of popular appreciation of its value. If these defects were removed, the Collector considered that very different results might be expected.

A third proposal was brought forward by the Chief Engineer, who advocated the imposition, not of a water-rate to be paid whether water was taken or not, but of a rate which should represent the actual *bonâ fide* benefits conferred upon the people by the works, irrespective of habitual irrigation, viz. protection from inundation, security against famine or scarcity, drainage, cheap carriage to good markets, a complete system of internal water communication, and an unfailing supply of good water. The cultivator who refused canal water in ordinary years, and only resorted to it in sea-

sons of exceptional drought to save his crop, was nevertheless, it was urged, in enjoyment of all these other collateral advantages. To let him go untaxed, and to throw the whole charge upon his more intelligent neighbour who made a regular practice of irrigation, would be inequitable. Advantages enjoyed by all should be paid for by all: common justice required that the whole burden should not be thrown upon one particular class. The charge for interest and maintenance ought, the Chief Engineer considered, to be met from two sources: one, a general rate upon the land, proportioned to the increased value conferred upon it by security from inundation and from all extraordinary risks of season, by drainage, and by increased value of produce; and the other, a special rate to be levied only on the lands for which water was taken regularly from year to year. All the benefits of both the compulsory and voluntary system would in this way be obtained. The general and compulsory rate would represent only value actually received; and the sale of water for regular irrigation—that is, for the purpose not merely of ensuring the safety of the crops, but for increasing their yield, would be a matter of perfectly free contract. This plan was proposed as the only method of securing to the State its just dues without risk of individual injustice.

Some decision between these contending theories of taxation was urgently called for. The existing system of canal revenue management had utterly broken down; the next irrigation season was approaching; and it was absolutely necessary that some measure should at once be introduced which should at least meet present necessities, should restore confidence, allay irritation, and put an end to the state of chronic antagonism between the people and the Irrigation Department, which previous mismanagement had engendered. The test of what was immediately practicable soon decided between the claims of the rival systems. It was apparent that a compulsory rate in any form could not be at once imposed, as in no part of the irrigable tract had the works reached anything like such a stage of completeness as would be a preliminary essential to the introduction of such a rate, nor were they likely to be in such a condition for some years. Nothing therefore remained but to give the voluntary system a further trial.

In a minute dated 12th December 1871, the Lieutenant-Governor reviewed the whole question, pointing out, in the first place, that any hopes which the supposed successful progress of irrigation in the

previous year had engendered, of the speedy realization of a remunerative income from the works, must be abandoned, and setting forth the true state of the case, and the system of management which had led to it. His Honour found that the failure of the old system was mainly due to the following defects:—(1) The constant changes and fluctuations in the water-rates; the people never knew one year what the rate would be the next, and they had more than once seen the rate changed in the course of the same year. (2) The rates had always been too high to induce the people to take water on a large scale. (3) Written agreements were not always insisted upon. (4) The leases were usually given to one person, such as a *zamíndár;* while practically the Revenue Officer had to deal with another, the *rayat* or cultivator, and the revenue could only be realized from the *zamíndár* on proof that the *rayat* took water, the whole *onus probandi* being thrown on the Revenue Officer. (5) The leases were always for indefinite areas, 'for as much land as should be found on measurement to have been irrigated;' and in the absence of any engagements on the part of the cultivators, it was often found practically impossible to prove the voluntary receipt of water, or even that any water was received at all. (6) Owing to the incompleteness of the minor distributaries, there were in most cases no proper means of leading the water from the distributary to the land to be irrigated; and it reached it only by flowing from field to field, causing great waste, and the irrigation of much land for which nothing was paid.

The Lieutenant-Governor of Bengal, therefore, decided upon retaining the purely voluntary system; but in consideration of the drawbacks and defects which had accompanied that system as previously administered, he directed that a proper set of rules should be drawn up to regulate irrigation assessments. A Committee, consisting of the Commissioner of the Province and the principal Revenue and Engineer Officers, met at Cuttack in the spring of 1872, and recommended a set of rules, which received the sanction of the Lieutenant-Governor and of the Governor-General, and are now in operation. The following are the principal points in the new system and the rules which embody it:—(1) The water-rates have been fixed for five years. The principal rate, that for rice, is R. 1 or 2s. per acre in Orissa, and Rs. 1. 8. 0 or 3s. in Midnapur, for water supplied on written leases, executed not later than the 1st May, *i.e.* before the commencement of the

irrigating season. (2) In the case of rice, penalty rates have been introduced with the view of checking the practice of taking water only to save the crop in times of drought. The rate charged for water supplied on leases given after the 1st May is fifty per cent. higher than the regular rate. (3) The supply of water on mere verbal application is absolutely prohibited. A formal written application is insisted upon in every instance. (4) The Revenue Officer deals directly with each individual *rayat*, unless a special bargain is made with the *zamíndár*. Each *rayat* executes a lease for his own fields, although one document is made to serve for any number of lessees in the same village. (5) A lease is never granted until it has been previously ascertained, by careful inspection, that the land for which it is bought is *bonâ fide* irrigable, *i.e.* that the means exist of leading water to it without overflow into other lands. (6) The leases are invariably for definite areas, and payment for the full area leased is insisted upon, unless the leaseholder can show that there has been a failure of water supply. Such failure must be proved at the time it occurs.

The new rules have worked satisfactorily since their introduction, and a steady, though small, increase has taken place in the area brought under irrigation. For the first year, however, there was a falling off. In that year, 1872-73, the area irrigated in Orissa was 4753 acres, being less by 6900 acres than in the previous year, owing partly to an unusually abundant rainfall, and also to non-renewal of a large lease taken by the Rájá of Darpan, which had fallen in. In 1873-74 the irrigated area was 12,571 acres, and in 1874-75, 22,796 acres.

Financial Aspects.—With the works in their present unfinished state, it is impossible to form any conclusion as to the future financial prospects of the canals. Only one canal has yet been opened out from end to end, namely, the Kendrápárá Canal from Cuttack city to Márságháí within tidal range; and it is from this canal that nearly all the traffic receipts are derived. The total returns from the other canals are, and must remain, insignificant, until the works are fully opened out from end to end. The following table exhibits the receipts from, and expenses connected with, the Orissa canals for each of the four years ending 1874-75. This table shows that during these four years the total receipts from all sources amounted to £17,288; and the total charges, including interest on invested capital, to £307,424, leaving a deficiency of £290,136, or an average of

£72,534 a year. Excluding interest, however, which amounts to an average of £57,117 a year, the excess of charges for maintenance and establishment over the total receipts during the four years amounted to £61,667, or to an average of £15,417 a year. The total capital expended on the Orissa Canals during the four years amounted to £536,539, or an average of £134,135 a year.

FINANCIAL STATISTICS OF THE ORISSA CANALS FOR THE YEARS 1871-72 TO 1874-75.

Year	Receipts			Expenditure			Deficiency	Capital Expended during the Year
	Irrigation Assessments	Navigation Tolls.	Total.	Charges of Maintenance and Establishment	Interest on Capital at 4½ per cent	Total		
	£	£	£	£	£	£	£	£
1871-72,	2,908	1,487	4,395	22,594	46,699	69,293	64,898	89,604
1872 73,	2,658	1,004	3,662	23,800	56,413	80,213	76,551	116,621
1873-74,	2,526	1,857	4 383	12,919	58,906	71,825	67,442	169,759
1874-75,	2,707	2,141	4 848	19,642	66,451	86,093	81,245	160,555
Total,	10,799	6 489	17,288	78,955	228,469	307,424	290,136	536,539

The total amount of capital invested in the Orissa canals up to the 31st March 1875 amounted to £1,551,951, exclusive of interest. The total financial deficit on these canals, from the time of their first opening till the 31st March 1875, is as follows:—Excess of current charges over receipts, £66,683; interest, £293,247; grand total, £359,930.

With reference to the future prospects of this and other irrigation schemes now in course of construction in Bengal, it may be well to quote here a few sentences from the Bengal Administration Report for 1871–72. In closing a review of the past history of irrigation in Bengal, the Lieutenant-Governor remarked as follows:—'If its progress has been slow and the financial results unsatisfactory, there is, it is hoped, less reason for extreme discouragement than might at first sight appear. The amount of capital sunk in the expensive head works and great lines of canal has been out of all proportion to the area as yet irrigable, which will be largely increased at a comparatively small expenditure on the

minor distributaries. The area commanded by the water will henceforth develop in a much higher ratio to the expenditure. The difficulties presented by the prejudices and ignorance of the cultivators have been aggravated by a defective system of revenue administration, which was in many respects calculated to check rather than to promote progress. The first essentials of financial success—moderation and fixity of demand—were wanting; and while ample facilities for illicit irrigation and evasion of the just dues of the State were afforded to the *rayat*, he had no protection against unfair or illegal assessment. From the new system better results may be anticipated, though the progress of irrigation will probably still be slow, and the time when the canals shall prove directly remunerative may be far distant.'

EMBANKMENTS AND CONTROL OF FLOODS.—The five rivers shown in a previous table (p. 36), namely, the Mahánadí, Bráhmaní, Baitaraní, Sálandí, and Subarnarekhá (the two latter, however, belonging to Balasor District), whose total discharge dwindles to 1690 cubic feet per second in the month of May, dash down 2,760,000 cubic feet of water per second in their floods. This is considerably more than twice the total discharge which the Ganges distributes all over Bengal, Behar, and the North-West Provinces during its maximum floods. It is obvious, therefore, that the immense volumes of water thus concentrated upon the comparatively small Orissa delta, must spread over the country in a manner which has hitherto defied control. From time immemorial, defensive works in the nature of embankments have existed along the sides of the rivers. But such works have hitherto failed to protect the low levels lying between the various deltaic channels. For particulars regarding Purí and Balasor, see my Statistical Accounts of those Districts. In Cuttack District, the Collector reports that there are 680 miles of Government and private embankments, which endeavour to regulate thirty-five rivers or distributaries. On the construction and repairs of embankments within the Cuttack Division, from the time we acquired the Province in 1803 to 1831, and within Cuttack District alone from 1831 to 1866–67, £157,676 has been spent. The inundation of 1866 broke through the Government embankments in 403 new places, and at 10 other parts that had been previously damaged, making a total of 413 breaches in one year in the single District of Cuttack. Of the thirty-five embanked rivers, not one escaped uninjured. Along a single one

of them, the Chhotá Bráhmaní, the flood burst down upon the surrounding country in no fewer than 74 breaches. The distributaries which suffered next to it were the Chhotá Chitartalá, which experienced 37 breaches; the Burá Alanká, 31; the Kátjurí, 30; and the Mahánadí, 22 breaches. Out of ninety *pargaṅás* in the District, only six escaped uninjured from this flood. Six hundred and forty-two square miles, or 411,120 acres, were submerged during a period varying from three to sixty days, the depth of water being from three to fifteen feet. A vast population of 699,803 persons were suddenly thrust out of their homes; and the Deputy-Collector estimated the loss of paddy alone at 366,152 tons, representing, at the prices of 1865, £917,413. The Inundation Committee calculated the actual value at one-fourth less. At the prices ruling during the famine year of 1866, when the inundation actually took place, its value amounted to £2,173,564. Nor does this calamity stand alone. In 1855 the floods were deeper, although from the shorter period of their continuance they did not do so much harm. Besides the terrible losses thus sustained from a single flood, 33,309 acres, or 52 square miles, are reported by the Inundation Committee as being permanently left waste for fear of flood. Colonel Rundall, the highest engineering authority with regard to Orissa, believes these figures to be merely a fraction of the land left untilled from this cause; and besides the revenue thus lost, no less than £80,881 of land tax have been remitted in consequence of floods during the thirty-six years ending 1866–67. This, too, in spite of the outlay on the embankments having constantly gone on increasing. During the first twenty nine years of which we have record, the expenditure averaged £1218 per annum for Cuttack District; while during the last twenty-eight years, ending in 1866–67, it has averaged £2440. Again, during the first half of these latter twenty-eight years, the average expenditure was £878 a year; during the third quarter it rose to £3264; and during the last quarter it reached the enormous sum of £4739 per annum. This brings us up to 1866–67, the year of the terrible inundation above described. Besides the loss of the fifty-two square miles left permanently waste for fear of flood, which pay no revenue to Government whatever, the cost of maintaining the embankments, added to the remissions of land tax in consequence of inundation, represents a total of £157,559 during the thirty-six years ending 1866–67, or an average of £4376 per annum. This amounts to an annual charge of over 5½ per cent. on the land tax of the District

But even this does not represent the total loss; for during the same period there have been remissions of revenue amounting to £142,500 in consequence of droughts. Adding this to the above-mentioned charges for floods and protective works, we find that the uncontrolled state of the Cuttack rivers has cost during thirty-six years £300,059. This is altogether independent of the large sums spent in relief operations during time of famine. The two items for remissions of land revenue and cost of protective works alone amount to an annual charge of more than 10¼ per cent. on the land revenue of the District. The Cuttack embankments are under the charge of the Irrigation branch of the Public Works Department.

UTILIZATION OF THE WATER SUPPLY.—False Point is the only port along the Cuttack coast; and owing to the absence of harbours, no lucrative river traffic has hitherto developed in the District. As in all deltas, the rivers are the high roads, but their use is for the most part confined to the internal distribution of commodities; the single article of commerce which they carry in quantity to the sea-board being rice. No effort has been made to utilize the rivers or streams as a motive power for turning machinery. Since the Government abandoned the salt manufacture, sea-board industries have practically ceased to exist; and the dearness of salt forbids the development of what would naturally be a great source of wealth to the Province, namely, its fisheries.

FISHERIES.—The rivers and maritime creeks abound with excellent fish, yet the whole rent paid to Government for fisheries amounts to only about £800 a year. The Government rental, however, by no means represents the actual value of the fisheries to the owners; but anything like an adequate development of this most important of the natural resources of Orissa is impossible while salt remains at the existing rates. Were it not for the high salt-duty, all the lower reaches of the rivers would be seats of large fish-curing establishments. At present, large quantities of fish are sent from the coast into the interior, but they generally reach the villages in a state of putrefaction. A little salting is attempted even at present; but the restrictions on the salt manufacture, the multiplicity of forms which have to be gone through even when a pass has been obtained, and the vexations attending the transit of salt, render it impossible for the illiterate fisherman to keep a stock of the article without subjecting himself to troublesome surveillance. In 1870, the Collector reported that the number of persons living exclusively by fishing is

very small in Cuttack; so small, that he was unable to hazard a conjecture as to their proportion to the total population. The Census Report of 1872 returned the number of Hindu fishing and boating castes of Cuttack at 66,648, or 4·6 per cent. of the Hindu population, who form 95·7 per cent. of the total population of the District.

Dr. Francis Day, Inspector-General of Indian Fisheries, in his elabotate *Report on the Fish and Fisheries of India*, has given an account of the state of the river fisheries of Orissa, from which I condense the following:—Fish forms an almost universal article of consumption. Dr. Day states that during a visit of inspection to Orissa in 1869, he was given to understand that, with the exception of religious mendicants, and those who have taken a vow that neither themselves nor their descendants shall eat fish, all classes use it. In the interior of the District, a complaint exists that the supply of fresh-water fish has fallen off of late years; and Dr. Day states that, except at seasons when sea-fish are obtainable, either from the coast or in their migrations up the rivers, the supply proves to be unequal to the demand. This arises from the extensive capture of breeding and young fish, a practice which is carried on in Orissa to a ruthless extent. The irrigation weirs at Cuttack are also said to obstruct the passage of the breeding fish up-stream. With reference to the wholesale destruction of fry, Dr. Day states in his Report, above cited:—'Most serious injury was, and no doubt is still, being effected in Cuttack District by the use of fixed engines for capturing breeding fish and their fry. Drag-nets and cast-nets of different sizes, also purse-nets and lave-nets, are employed. Drag-nets for the rainy season have a mesh of $\frac{1}{5}$ of an inch, and even less, between the knots; as the floods subside and the fishermen are able to wade up to their waists, the force of the current now becoming less, and the fry a little larger, $\frac{3}{10}$ of an inch is the usual distance; and when the water is clear, $1\frac{1}{10}$ inches between each knot comes into play. The reason of this is obvious. The young fry move about with the first freshes, and then the minute-meshed nets can kill them; but it is not until the cold season, when the water is clear, that the fry have grown to any size, and very fine meshes are then generally inapplicable. I say "generally inapplicable," for it is the rule that fish breed during the rains, but some do so likewise at other periods of the year. But these are not the finest nets used. A purse-net fixed to a wooden hoop, having meshes half an inch in

circumference, or $\frac{1}{8}$ of an inch between each knot, is employed to capture the fry up every little channel; and a lave-net, with as minute meshes, is likewise used for the same purpose. Even these, however, are not the most destructive practices in vogue in Orissa. Rattan or basket-work traps are brought into play. One of these traps is called a *salwá* or *patti*, and consists of very fine split bamboos, bound together by means of grass, the interstices between each piece being equal to $\frac{1}{8}$ of an inch, or less. This *patti* is about five feet high, and is in the shape of a regular wall-net. It is taken to a tank, and placed in the water in the form of a V, whilst fishermen on either side extend themselves outwards, and, by beating the water, drive the fish into the enclosure. The two ends are now brought together, and the fish penned into a small space; the two sides are advanced nearer and nearer until they almost touch, when the fish are removed by a hand-net, or by the hand alone. Weirs are used in the larger streams, and traps in every irrigated field. One of these last is of a horn shape, and constructed of basket-work, the interstices being so fine that even the smallest fry are captured. This is placed at most outlets, or in small channels during the floods; and as all the water must go through it, every fish is taken. When not of a sufficient size to entirely fill a channel, it is supplemented by bamboo walls extended laterally on either side. Another is shaped like a shoe, but the principle is identical. Damming is extensively practised. As the rivers commence drying up, earthen dams are raised along the bed, parallel with the course of the stream, but narrowing towards its lower end. Fish are driven in, the ends are stopped, and every one is taken. In the same way, when tanks begin to dry up, one portion is dammed off from the rest, the water ladled out, and all the fish it contains captured.'

A diversity of opinion exists as to whether the irrigation weirs form any material obstruction to the fish ascending the rivers, and thus contribute to their destruction. The Commissioner of Orissa is of opinion that the weirs do not affect the fish, and that fish proceeding up-stream can pass the weirs without difficulty. The Collector of Cuttack and the engineer officers in charge of the Irrigation Works, together with Dr. Day, hold the opposite view, and state that wholesale destruction of fish takes place at the weirs. Dr. Day states: 'From personal investigation, I most unhesitatingly deny that breeding fish ever pass up the narrow under-sluices of these weirs; but

those in the centre of the Jobrá and Midnapur weirs, which are from forty-five to fifty feet wide when open, can cause but little impediment to the ascent of fish. They make wide, open gaps, than which nothing can be better. But it is whilst the fish are waiting for them to be opened, and at such times as they are obstructed at these weirs, that their slaughter goes on; likewise in the dry season, when the spent fish and their fry are endeavouring to return to the sea, and all the waterway is closed against them. The destruction of large fish when in season would, of course, be useful as food; but, unfortunately, everything is captured, from fry ⅛ of an inch in length. Crocodiles congregate in large numbers at this place, where abundance of food is obtainable without trouble. Sharks, saw-fish, *bekhtis*, tortoises, and turtles revel in the pools below the weirs; and as soon as the water shallows sufficiently, nets, and every device that man can command, are brought to bear on the finny tribes. When I was there, the fishermen asserted that fish of all sorts were decreasing, and that those detained in the pool below the Jobrá weir were being slaughtered in numbers. One *zamíndár* stated that he owned a small piece of water in the Kátjurí river, three miles below Cuttack, but owing to the irrigation works having diminished the supply of water, his fishery had been ruined. A fisherman on the Kátjurí also complained of the decrease of fish in that river, but observed, as some compensation, that their price had largely increased. I examined the main stream of the Mahánadí river above the weirs, and higher up than where it first divides; and the following were some of the results arrived at. At Devíkatá, about a mile above the bifurcation of the river at Naráj, were seven fishermen; they complained that since the construction of the weirs the fish had much decreased, large ones being almost entirely absent from the river. At Dáspur, still higher up, in ten hauls of a large drag-net, nothing was obtained, and the fishermen stated their intention of leaving that part of the country and migrating to below the weirs. At Kundápur, the fishermen complained of a great decrease of fish. At Ustiá and Subarnápur were the same reports, and it was observed that the diminution had commenced since the erection of the weirs. At Bánki, the highest point I examined, the *tahsíldár* asserted that fish had become much scarcer since the construction of the weirs; and that fish were then (1869) selling for six *pice* a *ser*, which a few years previously could have been purchased for two *pice*.'

Dr. Day thus sums up his report on the Cuttack river fisheries :— 'I cannot help calling attention to the great richness in the number of species of fish. I collected 114 distinct sorts; but notwithstanding this, I found there was a general poverty of the rivers in furnishing food to the population at large. Whether rivers with or without weirs were examined, a general absence of large fish was very apparent, except during the monsoon months, when fish ascend from the sea to deposit their eggs or to prey upon their neighbours. Doubtless, weirs act very deleteriously by impeding the ascent of fish, and so assisting in their destruction, as well as by preventing the descent of the young to the sea; but a yearly and general slaughter, carried on by every conceivable means, and throughout the whole country, during the rainy or breeding season, is probably the chief cause of the falling off.' It must be remembered that Dr. Day's report only has reference to the inland fresh-water fisheries, and not to those in the larger rivers and estuaries along the coast, where the supply of fish is inexhaustible.

'The practice of stocking ponds and tanks with the fry of valuable sorts of fish during the monsoon months is extensively practised in Cuttack and throughout Orissa. The tanks which are thus yearly stocked with fish belong either to private parties, who purchase the young fish wherewith to stock them, or else to fishermen who rent these pieces of water, and themselves stock them with fish. The species taken for this purpose are the more valuable sorts of carps, such as the *kátlá*, and various Labeos and Cirrhinas, all of which, it is asserted, do not breed in tanks. The stocking is simply done with the object of obtaining a supply of food, and not for breeding purposes. Some of these tanks are perennial, whilst others yearly dry up. Those tanks which do not communicate with rivers are best suited for this purpose. Sometimes heavy freshes or rains occur after the ponds have been stocked, and as the surplus water flows off, these young fish are carried with it; this may occasion the necessity of re-stocking two or three times in one year. In Cuttack, fishermen sell fry for stocking purposes at the rate of one rupee for an earthen pot, computed to hold from two to four hundred small fishes. Small fry of some of the carps, placed in ponds about June, attain to about ten inches in length by the succeeding January; and it is at this period that netting the stock ponds usually commences. Some owners drag the tanks every two or three months; others only once a year. In ponds that dry up yearly, as they begin to get very

shallow, a dam is constructed across the middle, and the water is baled out, so that every one of the fish is taken.'

Lines of Drainage.—In the west of the District, where the mountains slope down to the plains, the lines of drainage are sufficiently marked by the great rivers and their tributaries. In the delta proper the low levels lie, not along the river-courses, but in the valleys midway between the rivers. The most important of these deltaic lines of drainage is that between the Mahánadí and the Bráhmaní. The surface-water here gathers into a series of marshes, with occasional lakes, and eventually finds its way to the sea-coast by the Gobrí river, which runs near Kendrápárá, and by the Gandakiyá. The shallower marshes are used for the *boro* rice, of which there are ten principal varieties, viz.:—*dubí*, *rávaná*, *harisankar*, *lanká*, *balunga-mardán*, *baitálpakhiyá*, *káili*, *kantisiyálí*, *khurá*, and *khejuriyá*. About one-fifth of the whole District is cultivated with this marsh rice. It is a coarse, cheap, indigestible grain, used by the lower castes, or for home consumption by the small husbandmen. It grows in from three to six feet of water. No effort has been made to introduce the longer-stemmed varieties, which in Eastern Bengal yield a harvest in from twelve to eighteen feet of water, and any attempts to improve the cultivation are unknown.

Natural Products.—Cuttack District possesses no important revenue-yielding forests. *Sál* trees are found in *kilá* Sukindá, but they have not been brought in quantity into the market, or made to contribute to the revenue. The eastern jungles along the coast support a good river trade in firewood, and in posts for cottage-building. On the western side of the District, the mountainous jungles also supply fuel, which is floated down the Mahánadí. The largest of these hill estates, Darpan, yields a revenue of only £46 a year from this source. Resin, bees-wax, and honey are also obtained, with the Nux vomica tree (*kuchilá*), and a sweet-scented grass of marketable value (*bala*). The chief supply of the jungle products, especially *tasar* and lac, is derived from beyond the frontier of the District, in the Tributary States.

Pastures.—The regularly assessed parts of the District, forming the Mughulbandí, are now too closely cultivated to leave any large spaces for grazing. The lower reaches of the rivers, however, pass through prairies covered with coarse grass, which stretch from the line where cultivation ceases, to that at which the Sundarbans and

marine jungles begin. This is especially the case towards False Point and Point Palmyras, where extensive breeding-grounds form an important item in the rental of the estates. The Kaniká property yields a revenue of £84 a year under this head, and Kujang about the same. Large herds of buffaloes and horned cattle are reared, some of which find their way by Ulubáriá across the Húglí; but the persons employed on the grazing-grounds constitute no appreciable percentage in the total population.

Wild Beasts.—Tigers, bears, leopards, wild buffaloes, antelopes, spotted deer, hog deer, hyænas, jackals, foxes, and pigs are found. Fish-eating and man-eating crocodiles abound in all the rivers and creeks, and grow to a very large size. Comparatively little loss of life is caused by tigers and leopards, as these animals are confined chiefly to the dense jungles on the coast, or in the hilly portion of the District, where the population is sparse, and where the deer and pigs supply them with sufficient food. The loss of cattle reported to the authorities from wild beasts is very trifling. In 1840 the rewards paid for the destruction of wild animals amounted to Rs. 92. 8. 0 or £9, 5s. 0d.; in 1860, to Rs. 66. 12. 0 or £6, 13s. 6d.; and in 1869, to Rs. 10 or £1 for wild animals, and Rs. 30 or £3 for crocodiles. Previous to this latter year no rewards had ever been given for the destruction of crocodiles, nor have rewards ever been given for snake-killing. The reported loss of life from snake-bites, wild beasts, and crocodiles in Cuttack District during the five years ending 1869 is as follows:—Snake-bite, 741; wild beasts, 470; crocodiles, 250—total, 1461; but the actual loss probably amounts to twice this number. The small game include hare, pea-fowl, jungle-fowl, double-spurred fowl, black and grey partridges, snipe, many kinds of duck and teal, bar-necked geese, common green pigeon, and several kinds of doves. No trade worth mentioning is carried on in wild-beast skins; nor are the forest animals made to contribute towards the wealth of the District.

Population.—Several rough attempts have been made towards an enumeration of the people. Stirling, in his Account of Orissa, published in vol. xv. of the *Asiatic Researches*, written about 1822, returned the population of the three Districts of the Orissa Division at 1,296,365, of which he estimated that Cuttack District contained 440,784 souls. This Census was based upon an enumeration of the dwellings, allowing five persons to each house. The Revenue Survey of 1842 estimated the population of Cuttack at 553,073,

and a subsequent attempt at a Census returned it at 800,000. In 1847 another estimate was made, showing a result of 1,018,979, giving an average pressure of 320 persons per square mile. Again in 1855 another Census was attempted, which returned the population at 1,293,084. All these calculations, with the exception of the last, were made by simply counting the houses through the agency of the police, and assigning an average number of inhabitants to each dwelling. But at the enumeration of 1855, special officers were appointed to test the results by counting the houses and their actual inhabitants in different parts of the District, and thus to ascertain the correct average for each dwelling. The result disclosed an average of slightly over five and a half inhabitants to each house, and returned a population, as above stated, of 1,293,084; the proportion of the sexes being 676,320 males, and 616,764 females, residing in 225,000 houses. After the famine of 1865-66, returns of the surviving population were called for from the landholders, and the result showed a population of 1,072,463. Prior to 1872, no regular Census of the District by the simultaneous enumeration of the people had ever been taken; and the Collector in 1870 did not think that any of the previous estimates could be accepted as accurate. The enumeration after the famine of 1866, he thought, approximated to the truth at the time; although the population had since materially increased, by the return of the people who had fled from their homes at the time of that great calamity.

THE CENSUS OF 1872.—A more exact Census of the population was taken by authority of Government in January 1872. The operations were entrusted almost entirely to the Commissioner of the Province and his subordinates, and the following paragraphs describe their proceedings in their own words. The Commissioner, Mr. T. E. Ravenshaw, writes as follows:—'Orissa being an outlying and backward Province, and its Tributary States hardly yet brought within the pale of civilisation, the first and great object to be obtained was, by dint of constant communication with the people, and by downright hard labour, to instil into their minds the real objects in view, to remove scruples, prejudices, and objections, and to smooth the way towards making a Census possible. This duty has been kept in view ever since the Census was first talked of; and I have never ceased to impress on my subordinate officers, that the one great thing to attain was a moderate amount of confidence and co-operation from *zamíndárs* and people. In fact, for two years past the

District officers and myself have undertaken a mission involving preaching the Census from village to village among landholders and tenants. I felt that among a population like that of Orissa and the Tributary States, misapprehension or misunderstanding would mean failure. That serious or general misunderstanding has been avoided, is perhaps the best criterion that any labour expended in preliminary arrangements has not been thrown away.

'It appears unnecessary for me to detail the serial steps preparatory to the Census, as these were, as regards the Regulation Districts of Orissa, kept as close as possible to the printed instructions issued by the Registrar-General, who visited Cuttack and settled with me all preliminary matters. My chief anxiety was regarding agency, and the original estimate of cost included a considerable sum for paid enumerators. However, as inquiries progressed, it was found that the available agency was not only numerically better than I had anticipated, but considerably more efficient and trustworthy. All Government officers in every department were temporarily enlisted; *zamíndárs* began to lend very fairly efficient co-operation, either themselves or through their rent-collecting staff; the *kánúngos* were found to be invaluable, and worked well; and their subordinate *patwáris*, where *patwáris* existed, were called into requisition and rendered good service. Paid agency became an exception, in place of a rule, as had been expected.'

The Collector of Cuttack, Mr. Macpherson, gives a full report of proceedings in his District, from which the following is an extract. The account of the steps followed in Cuttack applies equally to Puri and Balasor Districts:—'On the 21st June 1871, intimation was received that the proceedings in connection with the Census were to be resumed. Up to this time mere lists of the *asal* revenue villages in each *thánd* had been prepared, and arrangements were in progress for arranging them geographically. It was also necessary to obtain a complete catalogue of all the hamlets within each of the *mauzás* shown in these lists, and *kánúngos* were set to work to prepare this. The task was a very tedious and laborious one, and was not completed for the whole District till the end of October. In the meantime, however, the District Superintendent of Police had been directed to prepare lists of enumerators for all the villages entered in his *thánd* registers, and such other villages as were found on local inquiry to have been omitted. The District Superintendent's lists thus prepared, and

the lists of the *kánúngos*, were ready about the same time. The two were carefully compared under the supervision of an officer specially told off for the purpose, and all discrepancies were carefully reconciled after further local inquiry, where necessary. The corrected lists were made over to the Subdivisional officers in the beginning of November; and they were directed to arrange for the enumeration of all villages and hamlets named therein.

'I would point out that the police lists and the *kánúngos'* lists were prepared quite independently of each other, and every village or hamlet included in one and not in the other was at once the subject of special inquiry. There was therefore a double guarantee for the correctness of the list finally prepared from the two, and this was again tested by the Subdivisional officers. I may therefore safely say, that not a single hamlet in the whole District has, as far as I can ascertain, escaped enumeration.

'The lists were made over to the Subdivisional officers in the beginning of November; and a certain number of *kánúngos* and *patwáris* were assigned to each, exclusively for Census work, with instructions that the *kánúngos* were to be appointed superintendents over certain defined tracts of country, while the *patwáris* were to act as far as possible under them as supervisors. The whole mode of procedure, and the way in which the forms were to be filled up, had been carefully explained to them beforehand. The superintendents were at once to visit each village in their respective jurisdictions, and test the correctness of the information furnished by the police as regards enumerators, nominating new men where those already mentioned were found to be inefficient. They were to prepare, or cause to be prepared, with the assistance of the enumerators, lists of the householders in each hamlet, to furnish the Subdivisional officers with all information necessary for mapping out the work, and to distribute *sanads* of appointment to the enumerators. The Subdivisional officers were directed to follow in the track of the superintendents, to take up groups of villages systematically, test the work of the superintendents, finally decide on enumerators, and explain generally the object of the Census and the way in which it was to be carried out. With reference to the period over which the Census was to extend, and the employment of paid enumerators, they were to observe the following principles:—In groups of villages, where a sufficient number of competent enumerators was forthcoming, the Census was to be taken in one or two days, as the case might be.

In localities where there was no agency forthcoming, and paid enumerators had to be employed, the time of enumeration was to be extended; and the services of the paid agents were to be utilized for the full period, one man doing the enumeration of as many *mauzás* as he could within the time. The amount of remuneration was to be fixed according to the distance travelled and the amount of work done.

'As the enumerators were finally selected, *sanads* were distributed through the Subdivisional officers and their subordinates, the superintendents and supervisors. The Census forms were in a similar way distributed some few days before the time appointed for the enumeration, and collected again after the enumeration was completed.

'Considerable difficulty was anticipated, and indeed experienced in many parts of the District, in obtaining competent men as enumerators; and it would have been impossible to have taken a simultaneous Census by means of the printed forms, as persons who could write on paper were not obtainable. The difficulty was got over by allowing the Census to be taken in such places on palm leaves, the entries being subsequently copied by the supervisors, the police, and other Government servants, into the printed forms. This arrangement has not in any way interfered with the accuracy of the enumeration, and it has saved a considerable expenditure. The greatest difficulty as regards enumerators was experienced in the Jájpur Subdivision, where palm leaves had to be largely resorted to. It was found, as a rule, that the list of enumerators originally furnished by the police was altogether untrustworthy. In Kendrápárá Subdivision, out of 696 named, only 205 were approved of, and the servants and employés of *zamíndárs* were found to have been hardly ever nominated. By the system adopted, the incompetent men were weeded out, and the final selection was made by the *kánúngos*, acting under the immediate supervision of the Subdivisional officers. The classes from which enumerators were selected were mainly small *zamíndárs*, farmers, servants of *zamíndárs*, schoolmasters, and village writers, of whom there appear to be a greater number than we were aware of. The total number of enumerators employed was 4321, and the number of houses allotted to each varied from about fifty to sixty. There were, in addition, some 250 supervisors, besides superintendents; most of the former and all the latter being Government servants.'

As regards the accuracy of the Census, the Collector writes: 'I

have no doubt that the proceedings have been as complete as they could be, and that for a first attempt the enumeration has been successful beyond all expectation.' The Census was intended to be a simultaneous one; and with the exception of a portion of the Cuttack and Jájpur Subdivisions, in which the work lasted two days, the rural Census and that of Cuttack town was all taken on the 25th January 1872. In Kendrápárá town the Census was taken on the 7th, and in Jájpur town on the 11th January. The total cost of the District Census amounted to £166, 6s. 3d.

The results of the Census disclosed a total population of 1,494,784 souls, dwelling in 5500 villages, and inhabiting 281,430 houses; average density of the population, 470 per square mile; average number of persons per village, 271; average number of persons per house, 5·3. The table on the opposite page, exhibiting the density of the population, with the number of villages, houses, etc. in each Subdivision and police circle (*tháná*) of Cuttack District, is reproduced *verbatim* from the Census Report of 1872.

Population classified according to Sex, Religion, and Age.—The total population of Cuttack District consisted in 1872 of 1,494,784 souls, viz. 725,330 males, and 769,454 females. Proportion of males in the total population, 48·5 per cent.; average density of the population, 470 persons per square mile. Classified according to religion and age, the Census gives the following results:—Hindus—under twelve years of age, males 259,950, and females 233,382; total, 493,332: above twelve years, males 434,562, and females 502,146; total, 936,708. Total of Hindus of all ages, males 694,512, and females 735,528; grand total, 1,430,040, or 95·7 per cent. of the total District population. Proportion of males in total Hindus, 48·6 per cent. Muhammadans—under twelve years of age, males 7560, and females 6263; total, 13,823: above twelve years, males 11,169, and females 15,021; total, 26,190. Total of Muhammadans of all ages, males 18,729, and females 21,284; grand total, 40,013, or 2·7 per cent. of the District population. Proportion of males in total Muhammadans, 46·8 per cent. Buddhists—under twelve years of age, males 1, and females 2; above twelve years, males 6, and females 10. Total of Buddhists of all ages, males 7, and females 12; grand total, 19. Christians—under twelve years of age, males 357, and females 463; total, 820: above twelve years, males 641, and females 853; total, 1494. Total Christians of all ages, males

[*Sentence continued on page* 66.

Abstract of Population, Area, etc. of each Subdivision and Police Circle (*thánd*) in Cuttack District, 1872.

Subdivision.	Thana.	Area in Square Miles.	Number of Villages, *Mauzás*, or Townships.	Number of Houses.	Total Population.	Averages according to the Census Officers.				
						Persons per Square Mile.	Villages, *Mauzás*, or Townships per Square Mile.	Persons per Village, *Mauzá*, or Township.	Houses per Square Mile.	Persons per House.
Sadr or Head-quarters,	Cuttack,	389	358	35,957	170,928	439	·92	482	92	4·7
	Sálipur,	286	684	40,329	220,336	770	2·32	322	141	5·4
	Subdivisional total,	675	1042	76,286	391,264	579	1·54	375	113	5·1
Kendrapara,	Kendrápárá,	294	558	31,085	159,234	541	1·89	285	105	5·1
	Patámundái,	323	374	18,229	86,851	268	1·15	232	56	4·7
	Subdivisional total,	617	932	49,314	246,085	398	1·51	264	79	4·9
Jajpur,	Jájpur,	273	581	34,472	189,475	694	2·12	326	126	5·5
	Dharmsálá,	446	993	43,229	223,069	500	2·22	224	96	5·1
	Ulabár,	435	522	20,075	108,001	248	1·20	206	46	5·3
	Subdivisional total,	1154	2096	97,776	520,545	451	1·81	248	84	5·3
Jagatsinhpur,	Jagatsinhpur,	314	604	30,160	180,886	576	1·92	299	96	5·9
	Jagannáthpur,	418	826	27,894	156,004	373	1·97	188	66	5·5
	Subdivisional total,	732	1430	58,054	336,890	460	1·95	235	79	5·8
	District total,	*3178	5500	281,430	1,494,784	470	1·73	271	88	5·3

* This area has been ascertained to be incorrect; the area is now (1876) officially returned at 3858 square miles.

Sentence continued from page 64.]
998, and females 1316; grand total, 2314, or ·2 per cent. of the District population. Proportion of males in total Christians, 43·1 per cent. Other denominations not separately classified, consisting of aboriginal races and tribes—under twelve years of age, males 4105, and females 3968; total, 8073: above twelve years, males 6979, and females, 7346; total, 14,325. Total 'others' of all ages, males 11,091, and females 11,314; grand total, 22,398, or 1·4 per cent. of the District population. Proportion of males in total 'other' population, 49·5 per cent. Population of all denominations —under twelve years of age, males 271,973, and females 244,078; total, 516,051; above twelve years of age, males 453,357, and females 525,376; total, 978,733. Total population of all religions, males 725,330, and females 769,454. Proportion of males in total District population, 48·5 per cent.

The percentage of children not exceeding twelve years of age in the population of different religions is returned in the Census Report as follows:—Hindus—proportion of male children 18·2 per cent., and of female children 16·3 per cent.; proportion of children of both sexes, 34·5 per cent. of the total Hindu population. Muhammadans—male children 18·9, and female children 15·7 per cent.; proportion of children of both sexes, 34·6 per cent. of the total Muhammadan population. Buddhists—male children 5·3, and female children 10·5 per cent.; proportion of children of both sexes, 15·8 per cent. of the Buddhist population. Christians—male children 15·4, and female children 20·0 per cent.; proportion of children of both sexes, 35·4 per cent. of the Christian population. Other denominations—male children 18·3, and female children 17·7 per cent.; proportion of children of both sexes, 36·0 per cent. of the total 'other' population. Population of all religions—male children 18·2, and female children 16·3 per cent.; proportion of children of both sexes, 34·5 per cent. of the total District population. The small proportion of girls to boys, and the excessive proportion of females above twelve years of age to males of the same class, is probably due to the fact that natives consider girls have attained womanhood at a much earlier period than boys reach manhood. The proportion of the sexes of all ages, namely, males 48·5, and females 51·5 per cent., is probably correct. The excess of females over males is explained by the fact that Cuttack District supplies Calcutta and other towns with a considerable amount of labour.

The men go principally as palanquin bearers, and as labourers and domestic servants, and leave their wives and families behind them.

INFIRMITIES.—The number and proportion of insanes and of persons afflicted with certain other infirmities in Cuttack District is thus returned in the Census Report:—Insanes—males 205, and females 50; total, 255, or ·0171 per cent. of the District population. Idiots—males 99, and females 23; total, 122, or ·0082 per cent. of the District population. Deaf and dumb—males 407, and females 158; total, 565, or ·0378 per cent. of the District population. Blind—males 885, and females 626; total, 1511, or ·1011 per cent. of the District population. Lepers—males 382, and females 64; total, 446, or ·0298 per cent. of the District population. The total number of male infirms amounted to 1978, or ·2727 per cent. of the total male population; number of female infirms, 921, or ·1196 per cent. of the female population. The number of infirms of both sexes was 2899, or ·1939 per cent. of the total District population.

I omit the returns of the population according to occupation, as they do not stand the test of statistical criticism.

ETHNICAL DIVISION OF THE PEOPLE.—The inhabitants of Cuttack consist of three races,—Aboriginal, Indo-Aryan or Hindu, and Afghán or Musalmán. The aboriginal tribes here, as elsewhere, cling to their mountains and jungles. They chiefly consist of the Kandhs, Kols, and Savars (the last being by far the most numerous), and are regarded by the orthodox Hindus as little higher than the beasts of the wildernesses which they inhabit. Miserably poor, they subsist for the most part by selling firewood and the other products of their jungles; but a few of them have patches of cultivated land, and many earn wages as day-labourers to the Hindus. They form, in fact, an intermediate stage of destitution between the comparatively well-off tribes in the Tributary States (the stronghold and home of these races), and the Páns, Bauris, Kandárás, and other lowland castes, who now rank as the basest among the Hindu community, but who are supposed to be the remnants of the pre-Aryan people, from the similarity of their habits to those of the undoubted aborigines in the hill tracts. The great bulk of the Indo-Aryan or Hindu population consists of Uriyás, with a residue of immigrant Bengalís; Lálá Káyasths from Behar and Northern India; Telingás from the Madras coast; Marhattás from Central and Western India; Sikhs from the Panjáb; and Márwáris from Rájputáná. These immigrant castes live chiefly in the town of Cuttack, and are regarded as

temporary residents, although born in the Province. A large number of Bengalís and Lálá Káyasths have been settled in different parts of the District for seven or eight generations, a period sufficiently long to warrant their being classed with the Uriyá population, but for the caste system, which has stood in the way of their fusion. Several Sikh families have also settled in the rural parts. The Musalmán population are the descendants of the northern soldiery who swooped down upon Orissa in 1558, and during subsequent Muhammadan invasions, together with the few converts to Islám whom they made among the Uriyás.

The Census Report of 1872 ethnically divides the population as follows:—Europeans and non-Asiatics, 193; Eurasians, 210; non-Indian Asiatics, 6; aboriginal tribes, 19,483; semi-Hinduized aborigines, 195,709; Hindu castes and people of Hindu origin, 1,239,176; Muhammadans, 40,007; total, 1,494,784. I take the following table from Mr. C. F. Magrath's separate District Census Compilation for Cuttack. The list of Hindu castes will be reproduced on a subsequent page, but arranged in a different order to that given here, as far as possible according to the rank which they hold in local public esteem:—

Name of Nationality, Tribe, or Caste.	Number.	Name of Nationality, Tribe, or Caste.	Number.
I.—NON-ASIATICS.		III.—ASIATICS.	
Europeans—		*A.—Other than Natives of India and Burmah.*	
English,	138	Afghán,	3
Irish,	34	Jew,	3
Scotch,	14	Total,	6
Welsh,	1		
French,	2	*B.—Natives of India and British Burmah.*	
German,	1	1. *Aboriginal Tribes.*	
Greek,	1	Savar,	16,589
Portuguese,	1	Gond,	12
Total,	192	Kandh,	17
Australasian—		Dhángar,	36
Tasmanian,	1	Bhumij,	2,169
Total of Non-Asiatics,	193	Kol,	302
		Sáont,	28
II.—MIXED RACES.		Taála,	327
Eurasian,	210	Santál,	3
		Total,	19,483

Name of Nationality, Tribe, or Caste.	Number.
2. Semi-Hinduized Aboriginals.	
Bágdí,	3,702
Baurí,	45,391
Bhuiyá,	5
Dosádh,	10
Bind,	4
Baheliyá,	139
Kaorá,	126
Ghusuriyá,	543
Kháirá,	194
Kandárá,	61,202
Dom,	2,252
Chámár and Muchí,	12,267
Mihtar,	3,914
Pán,	64,765
Shiulí,	1,062
Pariáh,	103
Yadiká,	30
Total,	195,709
3. Hindus.	
(i.) Superior Castes.	
Bráhman,	138,123
Ganak,	10,030
Mastání,	15,526
Rájput,	10,728
Khandáit,	254,762
Khandwál,	322
Mahánáik,	8,290
Total,	437,781
(ii.) Intermediate Castes.	
Káyasth—	
1. Bengalí,	5,104
2. Karan,	47,709
3. Others,	225
Mahanti,	41
Baidyá,	234
Bhát,	469
Shagirdpeshá,	17,435
Total,	71,217
(iii.) Trading Castes.	
Agarwálá,	170
Márwárí,	30
Bais-baniyá,	9,165
Gandhá-baniyá,	493
Putlí,	13

Name of Nationality, Tribe, or Caste.	Number.
(iii.) Trading Castes—*cont.*	
Kumtí,	51
Baniyá,	54
Kapariyá,	350
Total,	10,326
(iv.) Pastoral Castes.	
Goálá (Ahir),	182
Goálá (Gaur),	105,658
Garerí,	354
Total,	106,194
(v.) Castes engaged in preparing Cooked Food.	
Halwái,	11
Kándu,	9
Gánrár,	57,357
Rarhí,	2,232
Total,	59,609
(vi.) Agricultural Castes.	
Chásá,	156,308
Súd,	28,276
Golá,	4,638
Or,	20
Ráju,	21
Agurí,	381
Beljwár,	465
Kultá, etc.,	327
Dográ,	332
Bhopá,	1,687
Sadgop,	218
Báruí,	4,416
Málí,	3,346
Kurmí,	191
Koerí,	28
Total,	200,654
(vii.) Castes engaged chiefly in Personal Service.	
Dhobá,	27,560
Nápit or Bhandárí,	29,494
Lodhá,	299
Bhoi,	146
Kahár,	9
Total,	57,508

Name of Nationality, Tribe, or Caste.	Number.
(viii.) Artisan Castes.	
Lohár (blacksmith),	11,071
Kánsárí and Thatharí (brazier),	7,579
Sonár (goldsmith),	13,987
Pathuriá (stone-cutter),	408
Barhái (carpenter),	17,184
Chitrakar (painter),	470
Kumbhár (potter),	16,812
Kachorá (glass-maker),	4,656
Láherí (lac-worker),	848
Sikalgar (steel sharpener),	15
Sankhárí (shell-cutter),	1,135
Darzí (tailor),	1,146
Sunrí (distiller),	3,246
Telí (oilman),	49,403
Thuriá (oilman),	2,707
Total,	130,667
(ix.) Weaver Castes.	
Hánsi,	1,242
Matibansí,	1,295
Patuá,	14,514
Ránginí,	296
Tántí,	37,822
Tulábhiná,	856
Others,	1,267
Total,	57,292
(x.) Labouring Castes.	
Nuniyá,	389
Beldár,	113
Matiyál,	1,425
Korá,	4
Total,	1,931
(xi.) Castes engaged in Selling Fish and Vegetables.	
Nikárí,	724
(xii.) Boating and Fishing Castes.	
Keut,	57,373
Tior,	541
Gokhá,	8,417
Naliyá,	149
Málá, etc.,	168
Total,	66,648

Name of Nationality, Tribe, or Caste.	Number.
(xiii.) Dancer, Musician, Beggar, and Vagabond Castes.	
Kasbí,	737
Chokár,	501
Kheltá,	1,588
Mantá,	7
Adhváriá,	15
Total,	2,848
(xiv.) Persons enumerated by Nationality only.	
Marhattá,	534
Sikh,	60
Telingá,	974
Madrási,	29
Total,	1,597
(xv.) Persons of Unknown or Unspecified Castes,	1,290
Grand Total of Hindus,	1,206,286
4. *Persons of Hindu Origin not recognising Caste.*	
Vaishnav,	24,330
Jugí,	4,810
Sanyási,	1,778
Nánakshábí,	36
Buddhists,	19
Bráhmas,	6
Native Christians,	1,911
Total,	32,890
5. *Muhammadans.*	
Mughul,	1,274
Pathán,	13,884
Sayyid,	3,724
Shaikh,	20,138
Unspecified,	987
Total,	40,007
Total of Natives of India,	1,494,375
Total of Asiatics,	1,494,381
Grand Total,	1,494,784

NO IMMIGRATION OR EMIGRATION, properly so called, takes place in the District. Large numbers of the Gaur, Goálá, and Chásá castes (herdsmen and cultivators) go to Calcutta for employment as upper house servants, palanquin bearers, or workers on the roads; but they all periodically return to their homes after an absence of about three or four years. The Telís (or oil pressers) supply porters and carriers to Calcutta, but they seldom fail to return to Orissa when they have made a little money. The licensed recruiters also collect small parties of low castes as labourers for the tea plantations of Eastern Bengal; and but very few of these emigrants return to the District.

HINDU CASTES.—The following is a list of 103 Hindu castes met with in Cuttack District, arranged as far as possible in the order in which they rank in local public esteem, and showing their occupations, etc. The figures indicating the number of each caste are extracted from the District Census Compilation of 1872.

HIGH CASTES.—The following twelve rank highest:—(1) Bráhman; priests, landholders, Government servants, agriculturists, etc. The Bráhmans of Orissa are divided into two classes,—Vaidik or sacerdotal Bráhmans, and Laukik or worldly Bráhmans, who engage in business in a variety of pursuits, mainly agricultural. The latter are said to be equally numerous with the Vaidik or priestly Bráhmans, but are held in less esteem. A more detailed account of the Vaidik Bráhmans, furnished by Mr. Beames, C.S., will be found in my Statistical Account of Balasor District. The Laukik or worldly Bráhmans bear the sept names of Balrámgotrí, Mastání, and Paniyárí. The Census Report gives a heading for the Mastání Bráhmans separately, but many of them are doubtless returned in the main body of Bráhmans. The Balrámgotrí Bráhmans are not specially mentioned in the returns, and are probably returned either with the Mastání Bráhmans, or simply as Bráhmans. The Paniyárí Bráhmans are so called from their cultivating and dealing in vegetables. They are said to be a numerous class, but only one person in the entire Province was returned as such in 1872; they probably described themselves simply as Bráhmans. The great majority of the Orissa Bráhmans are Siva-worshippers. The Census Report returns the number of Bráhmans in Cuttack District at 138,123, exclusive of 15,526 returned separately as Mastání Bráhmans. (2) Ganak or Jyotishí; a lapsed class of Bráhmans, who are considered as degraded by their indiscriminate

acceptance of alms from the low castes; they are the village astronomers and astrologers, who prepare the yearly calendars, cast nativities, announce propitious times for the performance of any act, tell fortunes, etc. The Census Report returns them as a class of Bráhmans, and puts their number in Cuttack District at 10,030. (3) Rájput. This caste claims the rank of Kshattriya, the great military caste of ancient India. The Orissa Rájputs probably comprise a good many of the Khatrí, or trading caste, as no distinction seems to have been made between them in the returns. There are no pure Kshattriyas in Orissa, but the chiefs of the western Tributary States claim the title for themselves and their immediate followers. The so-called Rájputs, again, are much lower in the social scale, being employed as messengers, constables, and doorkeepers. The Census Report returns their number at 10,728. (4) Khandáit. This class ranks next, and forms the most numerous caste in Cuttack. The name signifies 'swordsman;' and they originally composed the ancient militia of the country, maintained by the Rájás, holding lands on a strictly military tenure. They are now chiefly cultivators, and hardly to be distinguished from the Chásá or agricultural caste, described below. Although a numerous and well-defined body, the Khandáits do not appear to be really a distinct caste, but to be made up of various castes. The number of Khandáits in Cuttack District in 1872 is returned by the Census Report at 254,762. (5) Khandwál; 322 in number; and (6) Mahánáik; 8290 in number. Both the foregoing are returned in the Census as being subdivisions of Khandáits, and their names are said to be titles borne by certain Khandáit families. The habits and customs of the Khandwáls closely resemble those of the Goálás, a pastoral caste described below. (7) Karan; clerks and Government servants, also cultivators. The Karans are simply the Orissa counterpart of the Káyasths or writer caste of Bengal. They do not, however, intermarry with the latter, nor eat with them. The principal divisions of the Orissa Karans are the Krishnatreyá, the Sankhyáyaná, the Barádwáj, and Nágas. These families all bear the surnames of Dás or Mahantí; but those whose ancestors were the principal officers of the native Rájás enjoy the title of Pátnaik or Chief Reader. The Rájá of the Tributary State of Athgarh is said to be the head of the Karans in Orissa. The Census Report returned the number of Karans in Cuttack at 47,709. (8) Káyasth: principally employed as clerks

and Government servants, who have found their way into the Province from Bengal; number in Cuttack District, 5104. (9) Mahantí; stated in the Census to belong to the same class as the Karans and Káyasths, but they are not acknowledged as equals by the orthodox Káyasths. Number in Cuttack District, 41. (10) Baidyá; physicians; 234 in number. (11) Bhát; heralds and genealogists, also carriers of letters of invitation on occasions of feasting or other ceremony. They claim to be fallen Bráhmans, and wear the sacred thread; but the rank is not usually accorded them, and the Census Report classifies them as an intermediate caste. Number in Cuttack District, 469. (12) Shagirdpeshá; a numerous caste, said to be the offspring of low-caste women by Karan, Bhát, and sometimes (though rarely) Bráhman fathers; 17,435 in number.

TRADING CASTES.—Next follow the trading castes, who all claim rank above the Súdras, and assert that they belong to the Vaidya, or great mercantile caste of Sanskrit times. They are as follows:—(13) Baniyá; the generic term for a congeries of trading castes; 54 persons were returned as Baniyás in the Census of 1872. (14) Gandhá-baniyá; a subdivision of the great Baniyá caste, following the trade of grocers and spice-dealers; 493 in number. (15) Bais-baniyá; general traders; 9165 in number. (16) Putlí-baniyá; spice dealers; 13 in number. In the Census Report it is stated that the Putlí-baniyás are probably the same as the Bais baniyás; like them they refuse to eat food which has been prepared by Bráhmans. (17) Agarwálá; a caste of up-country traders; 170 in number. (18) Márwárí; a caste of up-country traders; 30 in number. (19) Kapariyá; cloth merchants; 350 in number. (20) Kumtí; a caste of Madras traders, 51 in number.

PURE SUDRA CASTES.—The respectable Súdra castes, twelve in number, come next. These are,—(21) Nápit or Bhandárí. The common name for a barber in Orissa is Bhandárí. Originally meaning a storekeeper, the term has come to be distinctively applied to the barber caste, it is supposed from the very intimate position which the caste occupies in the Hindu social system. Not only does the barber practise the business of his trade, but he may be said to be the confidant of the family; and it is he in Orissa who arranges marriage alliances, and other matters requiring delicacy and tact. The Census Report returned 29,494 of this caste in Cuttack District. (22) Lohár or Kámár; ironworkers and blacksmiths; 11,071 in number. (23) Kumbhar; potters and makers

of earthen idols; 16,812 in number. (24) Kánsárí and Thatharí; braziers, coppersmiths, and workers in bell-metal; 7579 in number. (25) Sadgop; the highest among the cultivating castes; 218 in number. (26) Báruí; growers and sellers of betel leaf; 4416 in number. (27) Málí; gardeners, flower-sellers, and workers in pith; 3346 in number. (28) Or; a cultivating caste, a branch of the Khandáits; 29 in number. (29) Súd or Súdra; agriculturists; 28,276 in number. (30) Telí or Tilí; oilmen by caste, but many have now abandoned their ancient occupation, and amassed considerable wealth by trading; 49,403 in number. (31) Thuriá; a subdivision of the Telí caste, who deal in oil-seeds, which they carry about on pack-bullocks. The word Thuriá is derived from the bullock's pack; 2707 in number. (32) Agurí; a respectable mixed cultivating caste; 381 in number.

Intermediate Sudra Castes.—The following twenty-three are intermediate Súdra castes, who are neither esteemed nor despised:—(33) Gaur; the great cow-keeping and pastoral caste of Orissa, corresponding to the Goálás of Behar and Bengal; 105,658 in number. (34) Ahír Goálás; the Bengal pastoral caste; 182 in number. (35) Garerí; an up-country pastoral caste; 354 in number. (36) Chásá; the great cultivating caste of Orissa; 156,308 in number. As stated above, the Khandáits, who in ancient times formed the peasant militia of the Province, and held lands in military fief, have now settled down into peaceful cultivators, and are hardly to be distinguished from ordinary Chásás, although returned separately in the Census Report. The other agricultural castes, who all rank almost on an equality, are the following:—(37) Golá; 4638 in number. (38) Ráju; 21 in number. (39) Beljwár; 465 in number. (40) Kultá; 327 in number. (41) Dográ; 332 in number. (42) Bhopá; 1687 in number. (43) Kurmí; 191 in number. (44) Koerí; 28 in number. (45) Vaishnav; not a caste, but a class of Hindus professing the doctrines of Chaitanya, a religious Vishnuvite reformer of the sixteenth century, who taught the rejection of caste. All ranks belong to the sect, and caste principles are said to be now creeping in. Number in Cuttack District in 1872, 24,330. (46) Sanyásí; not a caste, but a sect of Sivaite religious ascetics and mendicants, who also profess rejection of caste; 1778 in number. (47) Jugí; Sivaite religious mendicants and ascetics; 4810 in number. (48) Nánakshálí; followers of Nának Sháh, the founder of the Sikh religion, which also repudiates caste; 36 in number.

(49) Halwái; confectioners and sweetmeat makers; 11 in number. (50) Rarhí, preparers and sellers of parched grain. This caste is said to be peculiar to Orissa, and to be a sept of the Keut or fisherman caste, who have given up their own proper calling, and taken to the preparation and sale of parched grain; 2232 in number. (50*a*) Gánrár; preparers and sellers of parched grain, and other cooked vegetable food; 57,357 in number. (51) Kándu; sweetmeat-makers; 9 in number. (52) Kahár; an up-country caste, employed here as domestic servants; 9 in number. (53) Sankhárí; shell-cutters and makers of shell bracelets; 1135 in number. (54) Lodhá; domestic servants in respectable families; 299 in number. (55) Bhoi; employed in personal or domestic service; 146 in number.

Low Castes.—The following twenty-six are low castes, and are despised accordingly:—(56) Pathuriá; stone-cutters; 408 in number. (57) Barhái; carpenters; 17,184 in number. (58) Chitrakar; painters; 470 in number. (59) Kachoiá; glass-makers; 4656 in number. (60) Laherí; lac-workers, 848 in number. (61) Sikalgar; probably not a separate caste, but a class of Kámárs who occupy themselves in polishing metals and arms; 15 in number. (62) Darzí, a Hindu caste of tailors peculiar to Orissa and Midnapur; 1146 in number. (63) Sonár, goldsmiths and jewellers; 13,987 in number. (64) Sunrí; wine distillers and sellers by caste, but many have now abandoned their hereditary occupation, and have taken to trade or holding land, etc.; 3246 in number. (65) Dhobá; washermen; 27,560 in number. (66) Tántí; weavers; 37,822 in number. (67) Matibansí Tántí; a sept of the foregoing caste, who are said to have abandoned their hereditary occupation, and to be generally employed as writers and teachers, 1295 in number. (68) Patuá; weavers, 14,514 in number. (69) Hansí; weavers; 1242 in number. (70) Ránginí; weavers and dyers; 296 in number. (71) Tulábhiná; cotton-carders; 856 in number. (72) Korá; earth-workers and diggers, employed as labourers upon embankments; 4 in number. (73) Matiyál; labourers and diggers, etc.; 1425 in number. (74) Nikárí; sellers of fish and vegetables; 724 in number. (75) Keut; fishermen and boatmen; 57,373 in number. (76) Málá; fishermen and boatmen; 168 in number. (77) Tior; fishermen and boatmen; 541 in number. (78) Beldár; clay-labourers; 113 in number. (79) Naliyá; fishermen; 149 in number. (80) Gokhá; fishermen; said to be inferior to any of the

other fishing castes; 8417 in number. (81) Nuniyá; labourers and salt workers; 389 in number.

SEMI-ABORIGINAL CASTES.—The following twenty-two are semi-aboriginal castes, and form the very lowest section of the Hindu community. Except where otherwise mentioned, they are principally employed either as agricultural or ordinary day-labourers:—(82) Bágdí; 3702 in number. (83) Baurí; 45,391 in number. (84) Bhuiyá; 5 in number. (85) Dosádh; 10 in number. (86) Bind; 4 in number. (87) Baheliyá; 139 in number. (88) Kaorá; swineherds; 126 in number. (89) Ghusuriyá; 543 in number. (90) Kháirá; 194 in number. (91) Kandárá; weavers and agriculturists; 61,202 in number. (92) Dom; fishermen and basket makers; 2252 in number. (93) Chámár and Muchí; two distinct castes, but following the same occupation, that of shoemakers and leather dealers, and returned jointly in the Census Report; 12,267 in number. (94) Mihtar; sweepers; 3914 in number. (95) Pán; 64,765 in number. (96) Shiulí; 1062 in number. (97) Pariáh; 103 in number. (98) Yadiká; 30 in number. The following are returned as belonging to dancer, musician, beggar, and vagabond castes:—(99) Kasbí; 737 in number. (100) Chokár; 501 in number. (101) Kheltá; 1588 in number. (102) Mantá; 7 in number. (103) Adhváriá; 15 in number.

The above list shows the occupations which the castes ought to follow, according to their hereditary customs; but practically it is not now unfrequent for persons to forsake, either wholly or partially, their ancestral employment. The higher castes, as a matter of course, look upon these changes with disfavour, and decidedly prefer the old system, according to which every man was bound to follow his caste occupation, and which gave no opportunities to men of the lower classes to qualify themselves for positions reserved for their superiors. A general hankering after the occupations of the higher classes has arisen under our rule, not because such employments necessarily pay better, but on account of their having from time immemorial been associated with castes who rank well in public esteem. This change is said to have resulted in a neglect of several trades and callings, very useful in themselves, but which, according to the custom of the country, are followed only by low castes. Not less than three-fourths of the whole population of the District are engaged in husbandry. Generally speaking the people are poor, as compared with the population of Bengal.

Under the Muhammadan and Marhattá Governments, the Bengalís, Káyasths, and Muslmáns monopolized the principal offices of State, and continued to do so after Orissa had passed under British rule, until the vernacular of the country was substituted for Persian as the language of public business and of the courts of law. This change enabled the Uriyás to compete with the strangers for official employment; and almost simultaneously it was authoritatively laid down that, in selecting candidates for the Government service, preference should be given to natives of the Province, if they possessed equal qualifications. The Uriyás thus obtained a fair chance, and the lower ministerial offices are now principally in their hands. The higher executive posts, such as those of Deputy-Magistrate and Collector, are still, however, monopolized by Bengalís and other immigrants. This is little satisfactory to the natives; but the latter generally admit that the Bengalís have had the start of them in education and enlightenment. In 1869, an attempt, fortunately unsuccessful, by some of the Bengalí party to get their language practically substituted for Uriyá in the schools, gave rise to some bitterness. But, with this exception, a good feeling is maintained between the different races and castes in the District.

ABORIGINAL TRIBES.—The aboriginal tribes of Cuttack District are nine in number. They are principally found in the western hilly tract bordering on the Tributary States:—(1) Savar. This tribe forms one of the great aboriginal races of Orissa, who have preserved their ethnical identity distinct from that of the subsequent invaders and conquerors of the country. The Savars are supposed to be the same as the Sabaræ of Ptolemy and the Suari of Pliny. They inhabit the jungles of the Tributary States, and form a large proportion of the population in the States of Dhenkánal and Keunjhar. A detailed description of the tribe will be found in my Statistical Account of the Tributary States (vol. xix.). The Census Report of 1872 returns the number of Savars in Cuttack District at 16,589. (2) Kandh. Another aboriginal tribe of Orissa, principally inhabiting the Tributary States, and described at length in the Statistical Account of that part of the Province. Only 17 were returned in the Census Report of 1872 as dwelling in Cuttack District. (3) Gond. The great aboriginal tribe of Central India; a full description of them is given in the *Gazetteer of the Central Provinces* (Nágpur 1870). In Bengal, the Gonds are principally met with in the Chutiá Nágpur Division, and a brief notice of

them will be found in the Statistical Account of the Chutiá Nágpur Tributary States (vol. xvii.). The number of Gonds in Cuttack District, as returned in the Census Report, is only 12. (4) Taálá. A tribe which appears to be allied to the Savars, but regarding whom very little is known. Like many other of the aboriginal or semi-aboriginal races, they are said to be weavers by occupation, but are usually found as labourers and agriculturists. They number 327 in Cuttack District, according to the Census Report. (5) Bhumij; an aboriginal tribe whose home is chiefly in Mánbhum, and who are described in the Statistical Account of that District (vol. xvii.). Number in Cuttack District, 2169. (6) Dhángar; not a separate tribe, but a name applied by the people of the plains to all jungle and hill tribes who come to the settled Districts for work. The Census Report returns their number in Cuttack at 36. (7) Kol; the principal aboriginal tribe of Chutiá Nágpur, and described at length in the Statistical Accounts of Lohárdagá (vol. xvi.) and Singbhúm (vol. xvii.) Districts. The Census Report returns their number in Cuttack at 302. (8) Santál; fully described in my Statistical Account of the Santál Parganás (vol. xvii.); 3 in number in Cuttack. (9) Sáont; 28 in number.

Religious Division of the People.—The great bulk of the population are Hindus and Muhammadans, with a small sprinkling of Christians, and a larger proportion of hill tribes and other aboriginal people, still professing their primitive forms of faith. According to the Census Report of 1872, the Hindus of Cuttack District form 95·7 per cent. of the total population.

The Hindus, as above shown, form the great majority of the people, numbering in 1872, 694,512 males, and 735,528 females; total, 1,430,040, or 95·7 per cent. of the District population. Proportion of males in total Hindus, 48·6 per cent. The vast majority of the Hindus are Vishnu worshippers, but almost all the Bráhmans are Sivaites. The worshippers of Kálí, one of the forms of the wife of Siva or the All-Destroyer, are few in number, and, speaking generally, are found only among the Bengalí settlers.

The Brahma Samaj, or Hindu Theistic Assembly, was established in 1856; and in 1870 the Collector reported to me that the society numbered about forty members in Cuttack city, but that it made no progress outside the town. I have no subsequent return of the number of members; and in the Census Report, the followers of the Bráhma Samáj, with the exception of six who are returned separately

are apparently included with the general Hindu population. The first church established in connection with the Samáj was soon scattered, to be re-established in 1858. In 1869 a second Samáj was founded, the principal doctrines being the same as those of the older sect, but more practically applied as rules of life. The older Samáj is composed almost entirely of Bengalís, and the religious services are conducted in that language. The new sect carries on its services in Uriyá, and issues a monthly paper printed in that language. Both institutions were established by Bengalí gentlemen, and the pastors make their living by some secular vocation, receiving no stipend for their ministrations. The reformed faith is not regarded in Cuttack as a distinct religion from Hinduism, and its professors occupy the position belonging to their different castes, irrespective of their religious persuasion. The social status of a person still depends more upon the caste to which he belongs than on his creed or anything else. Education, wealth, and official position go far towards securing rank, but if not conjoined with good caste, the respect paid is forced rather than voluntary. Singularity on points of religion does not affect a man's position in society, unless he becomes an open apostate from the faith of his forefathers.

THE JAINS have a little settlement in the town of Cuttack, which in 1870 was returned by the Collector as consisting of nineteen members. They are not returned separately in the Census Report. They are found exclusively among the Márwáris and other traders from Northern India, and seldom or never make a convert. In the rural parts of the District they are unknown.

THE BUDDHISTS are returned separately in the Census Report as consisting of 7 males and 12 females, residing in Cuttack town.

THE MUHAMMADANS of Cuttack number 18,729 males, and 21,284 females; total, 40,013, or 2·7 per cent. of the District population. Proportion of males in total Musalmáns, 46·8 per cent. The Muhammadans of Cuttack are divided into the following classes, viz.:—Sayyid, 3724 in number; Shaikh, 20,138 in number; Mughul, 1274 in number; Pathán, 13,884 in number; unspecified, 987. The Sayyids claim the first rank in the list, on the ground of their assumed descent from the first followers of the Prophet. The Shaikhs are descended from later converts, but both these and the Sayyids belong to the Sunni sect. The Mughul, as his name denotes, is a foreigner, and is generally a Shaikh. The Pathán are descendants

of the Afghán conquerors of Orissa, and belong to the Sunni sect. The religion of Islám does not now make any progress in Orissa, although the famine of 1866 contributed to its ranks to a certain extent, some charitable Musalmáns having given shelter to deserted or orphaned children, and brought them up in their own faith. Although only forming 2·7 per cent. of the population of the whole District, the Muhammadans form a more considerable element in Cuttack town, where, out of a total population of 50,878, the Musalmáns number 7436, or 14·6 per cent.

THE CHRISTIAN population of the District in 1872 amounted to 998 males, and 1316 females; total, 2314, or ·2 per cent. of the total population. Proportion of males in total Christians, 43·1 per cent. Deducting 403 from the total Christians, for the European and Eurasian population, there remains a balance of 1911, representing the native Christian population of the District. This includes a number of children who were rescued from the famine of 1865-66. As a rule, the native Christians are despised by the Hindus and Musalmáns, but individuals among them exact respect by their high character, combined with wealth or official position. Two peasant settlements of Christians have been founded by the Cuttack Baptist Mission—one at Chhagán, a village in the Tributary State of Athgarh, but within a short distance of Cuttack; on the opposite side of the Mahánadí; and the other at Khanditar, on the banks of the Kharsuá, about ten miles from Jájpur. These little colonies live entirely by agriculture; while the town Christians find employment as Government servants, or in connection with the Mission, or as menial servants or day-labourers. Generally speaking, the native Christians manage to earn just enough to secure a decent livelihood; although, on the one hand, there are some isolated cases of comparative affluence, and, on the other, some who have to be assisted out of the Mission funds. If the famine orphans are excepted, Christianity appears to have made but little progress in actually converting the people, but it has done much indirect good. According to the Census returns, nearly all the native Christians are inhabitants of Cuttack town, the total Christian population of which (including Europeans) is 1968.

DIVISION OF THE PEOPLE INTO TOWN AND COUNTRY.—The population of the District is almost entirely rural. The Census Report returns only three towns as containing a population of five thousand souls or upwards, namely:—Cuttack, population, 50,878

Jájpur, population, 10,753; and Kendrápárá, population, 10,682. Details of the population of these towns will be found in the following pages. The town population is stationary; and the people of Cuttack District, and indeed of all Orissa, evince no tendency towards city life. Nothing except sheer necessity can induce them to quit their hereditary homesteads; and if so compelled, they prefer the humblest hovel in the country to living in a city. They look down on the townspeople, and seldom intermarry with them, in part owing to a belief that the practices and habits of city life are not so strictly in accordance with caste rules. The town population does not appear to furnish an undue proportion of the ordinary work of administration. The inhabitants of Jájpur and the surrounding country are supposed to be of a more litigious disposition than those in other parts; and the jungle communities along the eastern coast, and in the hilly western frontier, require a certain amount of tact to manage them. But as a whole, the people are quiet and submissive, very ignorant of their rights or privileges, and passive under oppression, if clothed with the garb of authority.

Mr. C. F. Magrath's District Census Compilation for Cuttack thus classifies the villages and towns:—(1) Headquarters Subdivision—500 villages containing less than two hundred inhabitants; 332 with from two to five hundred; 157 with from five hundred to a thousand; 46 towns with from one to two thousand; 5 with from two to three thousand; 1 with from three to four thousand; and 1 with upwards of fifty thousand inhabitants; total, 1042 towns and villages. (2) Kendrápárá Subdivision—536 villages containing less than two hundred inhabitants; 291 with from two to five hundred; 82 with from five hundred to a thousand; 16 towns with from one to two thousand; 5 with from two to three thousand; 1 with from three to four thousand; and 1 with from ten to fifteen thousand inhabitants; total, 932 towns and villages. (3) Jájpur Subdivision—1288 villages containing less than two hundred inhabitants; 540 with from two to five hundred; 198 with from five hundred to a thousand; 60 towns with from one to two thousand; 6 with from two to three thousand; 2 with from three to four thousand; 1 with from four to five thousand; and 1 with from ten to fifteen thousand inhabitants; total, 2096 towns and villages. (4) Jagatsinhpur Subdivision—864 villages containing less than two hundred inhabitants; 404 with between two and five hundred; 138 with between five hundred and a thousand; 22 towns with from one to two thousand;

and 2 with from two to five thousand inhabitants; total, 1430 towns and villages. Total for the whole District—3188 villages containing less than two hundred inhabitants; 1567 with from two to five hundred; 575 with from five hundred to a thousand; 144 towns with from one to two thousand; 18 with from two to three thousand; 4 with from three to four thousand; 1 with from four to five thousand; 2 with from ten to fifteen thousand; and 1 with upwards of fifty thousand inhabitants; grand total, 5500 towns and villages.

The following table exhibits an abstract of the statistics available for the three towns of Cuttack District. The total urban population thus disclosed amounts to 72,313, leaving a balance of 1,422,471 as forming the rural population. The dwellers in the towns, therefore, only amount to 4·8 per cent. of the total population of the District. The Muhammadans, who, throughout Cuttack, amount to only 2·7 per cent. of the general inhabitants, furnish 14·6 per cent. of the population of Cuttack city, and 12·7 per cent. of the total population in the three towns containing upwards of five thousand souls. The Hindus furnish 83·6 per cent. of the urban population; Christians, 3·8 per cent. of Cuttack city, or 2·8 per cent. of the three large towns; 'Others,' ·9 per cent. of the urban population, almost exclusively confined to Cuttack city.

RETURN OF POPULATION IN TOWNS CONTAINING MORE THAN 5000 INHABITANTS IN CUTTACK DISTRICT (1872).

Names of Towns	Hindus	Muhammadans	Christians	Others	Total	Gross Municipal Income	Gross Municipal Expenditure	Rate of Taxation per head
						£ s d	£ s. d	R a p s d
Cuttack, .	40,849	7436	1968	625	50,878	1617 16 0	1516 3 1½	0 5 1 0 7⅞
Jájpur, . .	10,161	576	10	6	10,753	244 4 0	225 0 0	0 3 8 0 5½
Kendrápárá, .	9,442	1225	10	5	10,682	181 2 0	169 10 0	0 2 9 0 4½
Total, .	60,452	9237	1988	636	72,313	2043 2 0	1910 13 1½	0 4 6 0 6½

CUTTACK (*Katak*), one of the five royal strongholds of ancient Orissa, is situated on the peninsula formed by the bifurcation of the Mahánadí, where it throws off the Kátjurí, in 20° 29′ 4″ north latitude and 85° 54′ 29″ east longitude. It is the centre of commerce, the seat of the principal civil court, and also the headquarters of the Commissioner of the Division. The city was founded about

nine hundred years ago by one of the kings of the Long-haired or Lion dynasty, and has continued to be the seat of government to the present day. Its position as the key of the hill territory, and as the centre of the network of the Orissa canals, gives it both military and commercial importance. At present, however, Cuttack is mainly known in the world for its beautiful filagree work in gold and silver. In 1825 the town contained, according to Stirling, a total population of about 40,000 souls, dwelling in 6512 houses. In 1869 an experimental Census returned the population of Cuttack town and suburbs as follows :—Town—area 1298 acres; houses, 9018; population, males 18,935, and females, 18,345; total 37,280. Suburbs—area, 8276 acres; 2246 houses; population, males 4666, and females 4490; total 9156. Grand total of town and suburbs—area, 9774 acres; houses, 11,314; population, males 23,601, and females 22,835; total 46,436. According to the regular Census, the population of Cuttack town and suburbs stood as follows in 1872 :—Hindus—males 21,142, and females 19,707; total 40,849. Muhammadans—males 3567, and females 3869; total 7436. Christians—males 804, and females 1164; total 1968. 'Others'—males 356, and females 269; total 625. Population of all denominations—males 25,869, and females 25.009; grand total 50,878. The gross municipal income in 1871 amounted to £1617, 16s. od., and the gross municipal expenditure to £1516, 3s. 1½d.; average rate of municipal taxation, 5 *ánnás* 1 *pie* or 7⅝d. per head of the town population.

THE CITADEL OF CUTTACK is situated on the south bank of the Kátjurí river, opposite to the city. It is styled Fort Barábátí, and its construction is assigned to various monarchs, reigning at widely different dates. Stirling is of opinion that it was probably built by Rájá Anang Bhim Deo in the fourteenth century. He thus describes the building :—'The square sloping towers or bastions, and general style, clearly bespeak a Hindu origin. The Muhammadan or Marhattá governors of Orissa added a round bastion at the north-western angle, and constructed the great arched gateway in the eastern face; which alterations are alluded to in a Persian inscription, giving for the date of the repairs and additions, the fourth year of the reign of Ahmad Sháh, or A.D. 1750. The fort has double walls built of stone, the inner of which encloses a rectangular area measuring 2150 by 1800 feet. The entrance lies through a grand gateway on the east, flanked by two lofty square

towers, having the sides inclining inwards from the base to the summit. A noble ditch faced with masonry surrounds the whole, measuring in the broadest part 220 feet across. From the centre of the fort rises a huge square bastion, supporting a flagstaff. This feature, combined with the loftiness of the battlements on the river face, gives to the edifice an imposing castellated appearance; so much so that the whole, when seen from the opposite bank of the Mahánadí, presented to the imagination of M. La Motte, who travelled through the Province in 1767 A.D., some resemblance to the west side of Windsor Castle. No traces of the famous palace of Rájá Mukund Deo, nine stories in height, mentioned in the *Ain-i-Akbarí*, are to be found within the walls of the fort; but the fragments of sculptured cornices, etc., which have been dug up at different times, and more especially a massive candelabra or pillar, furnished with branches for holding lights, formed of the fine indurated chlorite or pot-stone, are probably the remains of some large and splendid edifice.'

There is but little in the present appearance of the fort which answers to the above description. Mr. G. Toynbee, Canal Revenue Superintendent, Cuttack, in his recent work on the history of the Province under English administration, states:—'The Public Works Department have converted this fine building into an unsightly series of earthen mounds, and the ground within the moat into a wilderness of stone-pits. The stones composing the walls of the moat which surrounds the fort are now (1873) being used to build an hospital. Some of the fort stone was, I believe, used for the lighthouse at False Point, and for other public buildings; the dust of the rest is shaken off our feet against us on the station roads. The "great arched gateway in the east face," mentioned by Stirling, and a fine old mosque, called after Fathi Khán Raham, are almost the only objects of antiquarian interest which remain intact. The fate of many interesting ruins in the Province has unhappily been similar.'

JAJPUR, the headquarters of the Subdivison of the same name, is situated on the right or south bank of the Baitaraní river, which separates Cuttack from Balasor District, in 20° 50′ 45″ north latitude and 86° 22′ 56″ east longtitude. Jájpur for some time formed the capital of the Province under the Kesarí dynasty, but before the eleventh century it had given place to Cuttack, the present metropolis. The town is noted for its settlements of Bráhman Sivaite priests, and

is the headquarters of one of the four regions of pilgrimage (*kshetra*) into which Orissa is divided, viz. that sacred to Parvatí, the wife of the All-Destroyer. Besides the Subdivisional Courts, the town contains a police court, post office, charitable dispensary, a Government aided Anglo-vernacular school, office of an overseer of public works, etc. In 1869 the town contained, according to the experimental Census, an area of 2813 acres, 2296 houses, and a population consisting of 4491 males and 4689 females; total 9180. The regular Census of 1872 showed an increase of population during the preceding three years. In 1872 the Hindus amounted to 4873 males and 5288 females; total 10,161. Muhammadans—males 309, and females 267; total 576. Christians—males 6, and females 4; total 10. 'Others'—males 4, and females 2; total 6. Total population of all denominations—males 5192, and females 5561; total 10,753. Gross municipal income in 1871, £244, 4s. 0d.; gross municipal expenditure, £225; average rate of municipal taxation, 3 *ánnás* 8 *pie*, or 5½d. per head.

SIVAITE TEMPLES AND SCULPTURES.—Jájpur contains numerous Sivaite temples and sculptures, and other ancient architectural features of interest; now all more or less in ruins, having been thrown down and broken by the Muhammadan invaders. The following paragraphs, descriptive of these old remains, quoted from my *Orissa*, were written after a personal visit to the spot:—'The priestly settlement at Jájpur has left behind it memorials not unworthy of the ecclesiastical capital of Orissa. During two days I wandered among the ruins of the Sivaite faith, amid dilapidated temples, time-worn flights of river stairs, statues ignominiously cast upon their faces, noseless gods, and jungle-buried monoliths. Whatever Musalmán bigotry could destroy has perished; and the grave of an Afghán iconoclast, quarried out of Hindu shrines, now forms the most conspicuous monument in the metropolis of the Sivaite priests. The Muhammadans of the sixteenth and seventeenth centuries stabled their horses in the Hindu palaces, and tore down the great temples, stone by stone, to build royal residences for their own chiefs. At first the Orissa deities, who became the demons of the Musalmáns, as the gods of Greece and Rome furnished devils to primitive Christendom, resisted by signs and portents. But there came a saint in the Afghán army, named Alí Bukhar, a follower of Kálá Pahár, whose detestation of the infidel had transported him from Central Asia to the Bay of

Bengal, and whose piety (or persecution) cowed the evil spirits of the bygone creed into silence. He threw down the colossal statues of the Hindu gods, and for nearly three centuries they have lain prostrate under his mystical spells. The great high place of Sivaism resounded with the Friday prayers and the daily readings of the Kurán; and a curious document, dated upwards of two hundred years ago, still enjoins the Jájpur authorities to pay the cost for lamps to the Musalmán family in charge of the public ministration of Islám. In 1681 a noble mosque, built by Nawáb Abu Nasír, rose out of the inexhaustible quarries which the ancient temples supplied. But it was reserved for the English to put the finishing stroke of ruin to the royal and sacred edifices of Jájpur. A few years ago, the Magistrate noticed that our Public Works officers had torn down the last remnants of the ancient palace, and built bridges along the Trunk Road with the stones.

'But even the iconoclast fury of Islám, and the vandalism of the Public Works Department, have failed to obliterate the artistic magnificence of the Lion dynasty of Orissa. An exquisite, well-proportioned column rises above the jungle, and bears traces of the impotent fury of the Musalmán troops. The Afgháns tried to drag it down by chains and teams of elephants; but the barbarian conquerors of the sixteenth century found themselves unable to destroy the graceful Hindu creations of the tenth. They managed, however, to pull down the Sacred Vulture of Vishnu (*Garur*) which crowned its shaft.

'The bigotry of Islám defeated itself. The most important monuments at Jájpur owe their preservation to their having been thus thrown on their faces, and kept immoveable on the ground by the spells of the warlike saint. Three colossal statues, which had lain prone for more than two centuries, were raised in 1866 by a spirited young officer, and placed on the river bank, in spite of a warning that the sacrilege would make the holy man uneasy in his tomb. These statues consist each of one enormous block of chlorite, towering, even in their sitting posture, far above the heads of puny mortals. They represent the Queen of Heaven (Indráni, wife of Indra, god of the atmosphere); the Earth Goddess, who took on herself a mortal form (Varáhini) to become the wife of the Boar Incarnation of Vishnu; and the Goddess of Destruction (Kálí, the wife of Siva, the All-Destroyer), the tutelary deity of the place. These colossal monoliths must have been dragged across the river-

intersected delta from the mountains of the Tributary States, a hundred miles off; and their hard blue stone still bears witness to the fine chisellings of early art, from 900 to 1200 A.D. The Queen of Heaven (Indrání), a four-armed goddess, sits in calm majesty with an admirably cut elephant as her footstool. A muslin drapery (*sárí*) falls in delicate curves to her feet, and is fastened by a girdle at the waist. Elaborate ornaments cover her breast, and her hair towers up in a cone of curls interwoven with rich gems, with a single massive tress hanging down upon either shoulder.

'The Earth Goddess (Varáhiní), who became the wife of the Boar Incarnation of Vishnu, sits with her infant on her knee, and, like the other two, consists of a colossal monolith eight feet high by four in breadth. Magnificent bracelets adorn the wrists and shoulders of her four arms, and the little finger of her left hand proves that Hindu ladies of that remote period wore rings. Heavy necklets almost hide the bosom and waist, which her muslin drapery, as in the first figure, leaves half-bare. Bell-bangles encircle her ankles, crescent-shaped earrings depend from her ears, and on her head she wears a jewelled tiara, with the hair done up into a tower of curls, and a heavy tress falling upon each shoulder. She sits on a finely carved buffalo, the artistic lines of whose head and muzzle form a striking contrast to the miserable conventionalities which represent the sacred bull in front of Sivaite shrines at the present day. A temple to her husband, the Boar Incarnation of Vishnu, crowns a time-worn flight of stairs leading up from the river, adorned with a curious relief of the Sun God, but in other parts disfigured by the obscene sculpture which disgraces Vishnuvite art.

'The most striking of the three monoliths, however, is the wife of the All-Destroyer,—a colossal naked skeleton, with the skin hanging to the bones, and the veins and muscles standing out in ghastly fidelity. This appalling symbol of human decay has her hair brushed back under a snake fillet, with a death's-head over her forehead, and the distended hood of the cobra as a canopy above. Her serpent tresses fall down in twisted horror over her cheek. An endless string of skulls winds round her neck, her breast, her loins, and whole body. She sits upon a small figure of her husband, the God of Destruction, and the whole rests upon a lotus-leaved pedestal. In a curious gallery overlooking the now dried-up bed of the river, another figure of the Goddess of Destruction ranks with the parent of the God of Death among the Seven Mothers of Hindu myth-

ology, namely, Indráni, Varáhini, Vaishnavi, Kumári, Yama-Mátriká, Káli, and Rudráni. They form a series of beautifully-carved but sometimes revolting monoliths, to whose terrors the darkness of the gallery gives additional effect. The Goddess of Destruction here stands in the moment of her victory over a demon-host, leaping with savage joy, a brimming cup of blood in one of her four hands, and her battle-axe in another. Her husband, fearful lest the shaken universe should split in pieces under the dancing fury, has thrown himself beneath her feet. The mother of the God of Death looms through the darkness as a hideous, decrepit old woman, seated on a pedestal, quite naked, with a countenance alike expressive of extreme old age, and of that sourness of disposition which has rendered her proverbial as a scold.

'The temple walls and monolithic sculptures of Jájpur furnish, even in their fragmentary state, a chronicle of the ever-shifting religions of India. The great flight of steps which leads from the river to the shrine of the Boar Incarnation of Vishnu, commemorates by its name (Das-aswamedh *ghát*) the august horse sacrifice of Vedic times. Among the gods who thronged to the ceremony, came Holy Mother Ganges (Gangá); and tradition asserts that ever since those solemn rites, she has sent an offshoot of her waters through the bowels of the earth into Orissa, which emerges as the sacred Baitaraní river, the Styx of the Hindus. Siva-worship, after a long interval of time, succeeded to these Vedic legends and prehistoric rites; and Jájpur next boasted itself the abode of the Goddess of Destruction, and of the Sivaite kings. Siva, on the death of his wife (in her form of Satí, daughter of Dakshá and grand-daughter of Brahmá), wandered disconsolate for ages through the world, carrying her body on his head, and refusing to be comforted. But the other deities, pitying his despondency, cut up the corpse into fifty-one fragments, which, falling in different places, made the fifty-one places of pilgrimage devoted to the Goddess of Destruction. A part dropped down on Purí, where, even within the great shrine of the rival Vishnuvite god, Jagannáth, she is worshipped as the Stainless One (Bimalá). Another fell at Jájpur, where a temple still stands in a lofty cocoa-nut grove to her, as the Goddess free from Ignorance. (Birajá, hence Birajá or Párvatí *Kshetra*, the name of Jájpur and the region round about, sacred to the wife of Siva.)

'On the downfall of the Sivaite line in 1132, the Vishnuvite faith took up its abode in the city of the Goddess of Destruction.

During the next few centuries, Jájpur formed the occasional headquarters of the Vishnuvite dynasty. The sacred bird of Vishnu crowned the exquisite monolithic column which the Muhammadans in vain endeavoured to throw down. Another image of the Sacred Vulture now lies buried in a tank. The incarnations of Vishnu form the subject of endless sculptures and *alto-relievos* on the walls, and a temple to Jagannáth himself rises close to the sculptured gallery containing the Seven Mothers. Even the minute ramifications of the Vishnuvite creed have left their representations at Jájpur. The Sun God still drives his seven-horsed chariot on the walls, and a colony of Sun-worshippers continue to keep alive the sacred fire in a neighbouring grove.

'Jájpur unhappily formed the theatre of the struggle between the Musalmáns and Hindus in the sixteenth century, and emerged in ruins from the strife. In a report dated 4th September 1866, a recent Magistrate writes: "I know spots where once stood populous villages, which have now scarcely a sign of habitation." Notwithstanding the ravages of war, seven separate settlements of Bráhmans in Jájpur still trace their descent from the immigrations of the sixth century A.D. They claim to hold their broad and fertile lands, studded with rich cocoa-nut groves, by a grant from Yayati Kesárí, the first Sivaite monarch, who reigned between 474 and 520 A.D., expelled the previous Buddhistic dynasty, and brought in Hindu rites. Jájpur is still the fourth town in rank in Orissa. It derives much wealth from a yearly religious fair, dedicated to Baruní, Queen of the Lord of Waters, held in March or April, when the people flock to bathe in the holy waters of the Baitaraní; and also from the piety of pilgrims, who come to celebrate the obsequies of their ancestors in the city of the Goddess of Destruction. The priests keep cows which they sell to the devotees, who return them as a gift to their former owners, in obedience to a sacred maxim which enjoins each pilgrim to present a cow to his spiritual guide as he crosses the Baitaraní river.'

KENDRAPARA, the headquarters of the Subdivision of the same name, is situated a few miles to the north of the Chitartalá branch of the Mahánadí, in 20° 29′ 55″ north latitude and 86° 27′ 41″ east longitude. During the Marhattá rule, a Magistrate (*faujdár*) was stationed here for the purpose of checking the depredations of the Rájá of Kujang, who had for centuries previously preyed upon the surrounding country. In 1869, according to the experimental

Census Report, Kendrápárá contained a total area of 4210 acres, 2620 houses, and a population of 5795 males and 6026 females; total 11,821. The regular Census of 1872 returned the population as follows:—Hindus—males 4598, and females 4844; total 9442. Muhammadans—males 598, and females 627; total 1225. Christians—males 5, and females 5; total 10. 'Others'—males none, females 5; total 5. Population of all denominations—males 5201, and females 5481; total 10,682. The gross municipal revenue in 1871 amounted to £180, 2s. od., and the expenditure to £169, 10s. od.; average rate of municipal taxation, 2 *ánnás* 9 *pie* or 4½d. per head.

JAGATSINHPUR, also the headquarters of a Subdivision, is situated on the Máchhgáon Canal, now in course of construction, in 20° 25′ 30″ north latitude and 86° 43′ 16″ east longitude. According to the experimental Census Report, the town in 1869 comprised a total area of 1632 acres, and contained 1770 houses, with a population of 2463 males and 2269 females; total 4732. It is not returned in the separate statement in the Census Report of 1872, showing details of the population of all towns containing upwards of five thousand inhabitants.

ANTIQUITIES OF THE CUTTACK HILLS.—Many ranges and mountains in the western frontier of Cuttack District contain ruins of ancient temples, forts, sculptures, etc. These interesting antiquarian remains are principally found in the hills of the Assiá range in *parganá* Alti; on Nálti-girí hill, a spur of the Assiá range, but separated from it by the Birúpá river; on Amrávatí or Chatiá hill, near the Cuttack and Balasor Trunk Road; and on the Mahávinyaka peak of the Bárunibúntá range, in *killá* Darpan. These ruins were for the first time closely investigated a few years ago as objects of antiquarian interest, by Bábu Chandra Sekara Banarjí, Deputy-Magistrate of Jájpur. The following paragraphs are reproduced, in a somewhat condensed form, from a paper on the subject prepared by that gentleman, and published in *The Journal of the Asiatic Society of Bengal* for 1870, vol. xxxix. part i. pp. 158-171:—

'ASSIA RANGE; ALAMGIR HILL.—These hills cover a larger extent of country than any other range in the District. The ancient Hindu name was Chatush-pithá, subsequently corrupted into Chár-pulie, or the four "seats" or "shrines," so called after the four highest peaks of the chain. One of these peaks, which overlooks the stream of the Birúpá, is now known as the Alamgir

hill, on which stands a mosque on the summit of a precipice, about 2500 feet above the level of the country, in one of the most prominent and commanding spots in Orissa. The mosque is a plain building, consisting of a single room, 29 feet long by 19 broad and 9½ feet high, surmounted by a dome, and bearing an inscription in Persian, engraved on three seals of black chlorite which form the frieze, denoting that the building was erected in 1132 A.H. (1719-20 A.D.) by Shujá-ud-dín, the Orissa Deputy of the Nawáb Murshid Kulí Khán.

'The tradition connected with the building of the mosque runs as follows:—On one occasion, the prophet Muhammad was winging his way in mid-air on his celestial throne, accompanied by a large retinue. When the hour for prayer arrived, he alighted on Náltigirí. But the throne was too heavy for the hill, and the hill too small for the retinue. Hence the hill commenced to shake and sink. The prophet became annoyed, pronounced a *la'nat* or curse upon it, and repaired to the precipitous rock upon which the mosque now stands. There he addressed his prayer, and the print of his knees and fingers is pointed out on a stone which is preserved in the shrine. His followers rested on the four peaks. No water being obtainable on the hill, the prophet struck the rock with his wand, and a bubbling spring of pure water at once rose up, traces of which are still shown to pilgrims. When Shujá-ud-dín was marching to Cuttack, he encamped at Irakpur, where he heard the voice of prayer chaunted from the top of the hill at the distance of six miles. His followers became anxious to visit the shrine; but Shujá dissuaded them, making a vow at the same time, should his march prove successful, to come back and pray on the spot with them. On his victorious return, Shujá constructed a road up the hill about two miles in length, and built the mosque which still bears his inscription.

'The mosque faces the east. In front there is a platform surrounded by a thick wall with a gate. Towards the west, high and rough rocks overlook the building; on the north, a high terrace has been raised for the reception of *darveshs* and pilgrims. The expense of the shrine is covered by the profits of an endowment of sixty acres of land granted by Shujá-ud-dín. The mosque is lighted every evening; the rocks resound with the voice of prayer every morning and evening, when the people of the neighbourhood, Hindus as well as Muhammadans, offer homage at the shrine. The

Hindu name of the Alamgír peak was Mandaka, from the village of that name at its foot, where the *manda* or primitive system of ordeals by means of fire or boiling oil, etc. were held in the ancient Hindu period.

'UDAYA-GIRI is the second of the four peaks of the Assiá group. The spur on which old ruins are found is an elevated terrace, sloping from one hundred and fifty feet high down to the level of the plain. It is situated towards the north-eastern extremity of the Assiá hill, surrounded by a semicircular range of pointed boulders, leaving an opening towards the east. On the latter side it overlooks the Kaliá river, which flows about two hundred yards from its base. The hill is appropriately named Udáya-girí or Sunrise Hill, from its being the most easterly extremity of the Assiá group and of the Cuttack hills. At one time, the sea, according to local tradition, washed its foot. The soil beyond is pure alluvion; between it and the sea scarcely a stone can be seen.

'At the foot of the hill, the eye is caught by a colossal image of Buddha, half covered with jungle, and a portion buried in the earth. It is fully nine feet in height, the length from the knee to the head being seven feet. The figure is cut in high relief on a single slab of rough chlorite. He holds a large lotus in his left hand; the nose and the right hand are mutilated. The ears, arms, wrist, and breast are covered with ornaments, and the cloth round the waist is fastened with three chains worn like a belt, answering to the *gót* of the present day; the breastplate is of an excellent pattern. Passing over the ruins, we come to the Bápi, or well, cut in the rock. It is 23 feet square, 28 feet deep from the top of the rock to the water's edge, and enclosed by a stone terrace, 94 feet 6 inches long by 38 feet 11 inches broad. The entrance to the terrace is guarded by two monolithic pillars, the tops of which are broken. The edge of the well and the extremity of the terrace are lined with battlements of large blocks of wrought stone, rounded on the top and three feet in height, leaving a wide passage or walk behind. The well is situated near the southern extremity of the terrace. From the north and in the middle of the terrace, a few yards off the entrance, a flight of 31 steps, 3 feet in breadth, runs down the rock as an approach to the water.

'About fifty feet higher up in the jungle, there is another platform, on which once stood a Buddhist sanctuary. Numbers of images of gods and goddesses, engraved on slabs of different shapes, are

scattered around. A group with the head and arms mutilated is still worshipped by the people; but all trace of their original character is lost, by the figures being painted over with repeated layers of vermilion and turmeric. These images, no doubt, belong to the period when Buddhism had lost its influence and was passing into Brâhmanism. The chief interest of the place, however, lies in the ruins of a gate, and an image of Buddha. The place is so enveloped in jungle, and the ruins so buried in earth, that it is difficult to form an idea of the edifice which once stood there; but there seems to be little doubt that the sanctuary was partly built up, and partly excavated out of the rock.

'The gate is composed of three heavy rectangular blocks of stone, one being placed transversely over the other two. The height of the gate, omitting the portion that has been buried by the accumulation of rubbish, is 7 feet 8 inches. The upright blocks have been cut into five bands highly ornamented with sculpture, which appears as fresh and sharp as if recently chiselled. The innermost band contains wreaths of the true lotus (Nelembium speciosum). There are altogether twelve groups of the flower. The second band is divided into panels, carved with male and female figures in armour. The middle one contains a wreath of flowers. On the fourth band there is a continuous winding wreath, encircling figures of men and women. The last or the outermost band is a wreath of large flowers of great beauty. The middle band is capped by a capital. The architrave and the frieze are embellished with a great number of grotesque figures. In the middle of the frieze are two niches containing figures of Buddha. In the middle of the architrave, another figure of Buddha appears, over whose head two elephants twist and wave their trunks from opposite sides. On both sides of the group, small grotesque male and female figures have been cut into the form of a wreath; the waving hand and forefinger of each touching a point on the shoulder of the figure preceding, and the toe placed on the projected knee of the one following. Most probably this gate was provided with doors, as two large holes in the corners seem to have been intended to receive the hinges.

'About sixteen feet beyond the gate, behind a narrow passage blocked up by brambles, is a cell nine feet long by as many feet high, containing a large image of Buddha in a sitting and meditative posture. It is 5 feet 6 inches long from waist to head. The face itself is 1 foot 6 inches by 1 foot 5 inches, and the breast 3 feet 6

inches broad. It is made of three pieces of bluish chlorite. The head is formed of one piece, the neck down to the breast of another, and all below of a third. The joints have cracked a little now, but it is probable that they could not originally have been discerned. The rock behind the image has been smoothed with layers of small bricks. There are four huge stone pillars, two standing near the cell, and two near the gate, which must have, at one time, supported a roof, and formed a porch in front of the cell. There is an expression of strength and boldness about the image, which contrasts strikingly with the meekness of the eyes. The left arm has been placed carelessly over the thigh, the palm being visible. The right hand has been mutilated; so has the nose. Scarcely an image is met with on these hills that has escaped the ravages either of time or of Muhammadan fanaticism.

'ACHALA BASANTA, literally 'Eternal spring,' is another of the Assiá peaks. At the foot of the hill lie scattered the ruins of Majhipur, the residence of the brethren and relatives of the old Hindu chief of the hills. Dilapidated remains of old gates, stone platforms, and broken walls are all that are now visible, but these do not suffice to give any idea of the size of the original edifice.

'BARA DEHI is the highest of the four chief peaks of the Assiá range. The seat of the old hill chieftain is at the foot of the mountain. During the Musalmán and Marhattá periods, the hill estate of Alamgír ranked among the *killá-játs*, or permanently-settled estates of Cuttack. At the time of the British Land Settlement, the Rájá proved recusant, from a mistaken notion of his own superiority; and his estate was therefore included within the Mughulbandí, or temporarily-settled tracts. It is stated that the Rájá subsequently made his submission, but his title was not recognised by the Settlement Commissioner, as his title-deed appeared to be suspicious. The Alamgír estate has now been split up, and has passed into the hands of different purchasers; and the representative of the old Rájá's family is a pauper, living on the produce of a few acres of land assigned to him by the gratitude of an old servant of the family, the *Garh Náik*, or governor of the fort.

'NALTI-GIRI.—This hill is situated in the north-western corner of *parganá* Matkadnagar. It is merely a spur of the Assiá range, but separated from it by the Birúpá river. The hill has two peaks of unequal height; it bears little vegetation except a few sandal trees, being the only place in Orissa where this valuable wood is

met with. On the lower peak are the ruins of two very ancient structures, situated about four hundred yards from each other. One of these stands on a bold prominence, the heads and sides of the rocks around being bald, moss-covered, and jagged. The ruins appear to be the remains of an old Buddhist temple. They consist of massive slabs of granite whitened by age. The *mandap*, or porch, is a complete ruin, portions of monolithic pillars, seven or eight feet in height, standing on the corners of the basement, with a figure of a Hindu (?) god cut in the pedestal of one. The structure had been raised on a substantial foundation; and it is probable that some other force than the mere wasting influence of time has been at work to pull it down. This is the more probable, as the ruins of a Musalmán tomb are close at hand, very likely built out of the materials of the more ancient building. The other structure, which stands on the pass between the two peaks, is built on precisely the same plan as the first, and consists of a porch and a cell, surmounted by a small pyramidal tower. This is in a better state of preservation than the other. The roof of the porch has given way, but that of the cell still stands. It has no columns, and is formed of solid walls, with niches in the interior containing images of Buddha, or Ananta Purúshottama, as the people on the spot call them. The figures are all erect, about five feet in height, holding in the left hand a lotus with a long stem, cut in high relief. The right hand and nose are mutilated. The eyes have a meek expression; and the curled hair is tied with a fillet round the middle of the head. The ears, breast, arms, and wrists have ornaments similar to those of the figures in the Bhuvaneswar and other old Orissa temples, and seem to belong to the same age. In front of the temple is a round brick pillar, encircled at places with raised rings, with small niches here and there, and with projecting bricks, to facilitate climbing.

'On the higher peak, and at the highest extremity of the hill, at an elevation of about a thousand feet above the surrounding country, are the ruins of a round building. Three circular layers of stone are all that now remain, marking the base of the temple. In the middle of this platform are the traces of three other layers, and a number of cut stones lie scattered around it. About five hundred feet below this point, on the western slope of the hill, is a place called the *háthi-khál*, or Elephant Cave, the roof of which has fallen down. At this spot there are six figures of Buddha, all of the same height, standing

in a line, portions of their legs up to the knee having been buried by the fall of the cave, in front of which they must originally have stood. These figures are four feet from knee to head, and are cut on slabs of sandstone, two feet three inches in breadth. They appear to be very old, and are enveloped in a milk-white moss. An inscription on one of the slabs contains the Buddhistic creed in the Kutila character. A few yards from these figures is a broken pedestal, ornamented with two lions couchant, with a lotus in the middle, on which a goddess (*devi*) is sitting, whose feet and dress up to the waist are only visible. The pedestal is elegantly cut, in a good style of art.

'AMRAVATI HILL.—This hill is now known as the Chatiá hill, from its proximity to the village of that name on the Cuttack Trunk Road. At the eastern foot of the hill are the remains of an old fort, the broad and extensive rampart of which, made of laterite, forms the most prominent feature of the ruins. The stone wall is four feet deep, and the people say that it was one *kos* (two miles) square. Within the rampart is a high platform, accessible by a flight of steps; but a number of broken pillars and capitals alone remain to mark the edifice that once stood there. On another platform are two images of the goddess Indráni, cut out of blocks of slate-stone, and remarkable for their elegance and beauty. The people in the neighbourhood assert that before the construction of the Cuttack Trunk Road, the ramparts were in a much better condition than at present, the Public Works Department having demolished them for the sake of the stone, which they used as road-metal. A spacious tank, called the *Nil-pukhur*, covering about twenty acres, is situated within half a mile of the hill. In the centre of this tank are the ruins of an old dwelling of considerable dimensions, partly covered with shrubs, and partly whitened with moss.

'MAHAVINYAKA.—This is one of the peaks of the highest chain of hills in Cuttack District, namely, the Bárunibuntá hills in *killá* Darpan. The surrounding country is wild, and inhabited by the aboriginal tribe of Savars. The hill is covered with primitive jungle, and seldom visited by any but pilgrims. It was probably from the beginning a Sivaite place of worship, no signs of Buddhism being anywhere traceable. The prospect from the top of the hill is magnificent. On the northern slope of the hill, about four hundred feet above the level of the country, there is an *asthala* or monastery, now occupied by Vaishnavs, who have evidently superseded the

original Sivaites. The base, formed of a piece of cut stone, is all that remains of the original sanctuary of the place. The walls and the steeples appear to have been repaired or rebuilt, after they were destroyed by the Muhammadans. The principal curiosity of the place is a massive piece of rock, known as the god Mahá-vinyaká, over which the modern temple has been built. The rock is over twelve feet in circumference, oval at the top, and has three faces in front. The middle one bears a tolerable resemblance to the head and trunk of an elephant, and is accordingly worshipped as Ganesa or Vinyaká. The right face of the rock is considered to be Siva. The left face of the rock has a knot over it, which is fancied to be the bound-up tresses of the goddess Gaurí. The rock is accordingly worshipped as the union of the gods Siva and Ganesá, and of the goddess Gaurí. About thirty feet higher up there is a waterfall, which supplies water to the temple and pilgrims. A few steps above this fall are some images of Siva, called the *Ashta Lingam*, from their number.'

THE MATERIAL CONDITION OF THE PEOPLE IN CUTTACK is gradually improving. Although it may be difficult to tell precisely when and how this improvement began, the evidences of it are numerous and unmistakeable. Good government and freedom from foreign invasion during the past half-century gave them a start, and the prices of country produce have doubled during the past ten or twelve years. Nor is this rise the result of any falling off in the sources of supply, for the area of the land under tillage has increased during the same period. European piece-goods, and other articles of comfort and luxury, are now imported into the District in much larger quantities than before. The vast sums expended of late years on the irrigation and other large public works, have made money more plentiful, and the development of the export trade in grain and oil-seeds has yearly contributed to the currency of the Province. This export trade, although of very ancient standing by the land route to Tamluk and Ulubáriá on the Húglí, received a fresh impetus from contact with English enterprise, which in 1860 began to open out the seaboard. At first, export trade had to contend against serious difficulties, arising from the want of roads to the coast, and from the aversion of the petty proprietors to innovation of any sort. But the grain-growers soon came to understand their interests too well to be influenced by the landlords, and the construction of the Táldandá and Máchhgáon roads created facilities for the transport of

produce. Fresh capitalists entered the field. The exports grew larger year by year, and carried away from the District the surplus grain upon which the people might fall back in the event of a failure of the crop, such as that of 1865. There can be little doubt that the previous heavy exportations intensified the sufferings of that and the following year. The famine, however, had one good effect. The exceptional position and wants of Orissa have been anxiously inquired into. Several important schemes tending towards the amelioration of the condition of the people have been accomplished, the most important being the opening of water communication between Cuttack and False Point, by means of the Kendrápárá Canal, described on a former page. The Táldandá and Máchhgáon Canals, which will also connect the capital of the Province with tidal waters, are being actively pushed on, and are now approaching completion.

THE DRESS of an ordinary well-to-do shopkeeper in Cuttack consists of a cotton waist-band falling over the thighs (*dhutí*), a cotton shawl (*chádar*), and scarf (*gámchá*), altogether worth about Rs. 1. 10. 0 or 3s. 3d. In winter time, a thick coarse cotton shawl (*giláph*) is worn. A peasant's dress consists of a waist-band and cotton scarf, of the value of about Rs. 1. 2. 0 or 2s. 3d.; and for the winter, a coarse mat wrapped round his body (*hens*). The clothing of a wealthy man differs from that of a poor one in quality, but not in quantity.

THE DWELLING of an ordinary shopkeeper costs about Rs. 15. 12. 0 or £1, 11s. 6d. to build, thus:—Four wooden posts, Rs. 1. 4. 0 or 2s. 6d.; six wooden rafters, 12 *ánnás* or 1s. 6d.; 200 bamboos, Rs. 3 or 6s.; string, 12 *ánnás* or 1s. 6d.; straw, Rs. 7. 8. 0 or 15s.; a pair of doors, Rs. 2. 8. 0 or 5s. The furniture in such a house generally consists of a brass platter (*kánsá*), value Rs. 2 or 4s.; a brass jar (*lotá*), Rs. 1. 8. 0 or 3s.; a brass cooking pot (*pital*), R. 1. 0. 0 or 2s.; a small brass plate (*thálí*), Rs. 2 or 4s.; four brass cups (*katorá*), Rs. 2 or 4s.; a stone mortar (*silá*), 6 *ánnás* or 9d.; a mill (*jántá*), 12 *ánnás* or 1s. 6d.; a knife (*pánki*), 2 *ánnás* or 3d.; and a coarse mat (*hens*), 4 *ánnás* or 6d.;—total value, Rs. 10. 0. 0 or £1. Some of the larger shopkeepers have more substantial dwellings, and a few have even brick-built houses. The dwelling of an ordinary well-to-do husbandman costs about Rs. 9. 12. 0 or 19s. 6d., as follows:—Four wooden posts, Rs. 1. 4. 0 or 2s. 6d.; three wooden rafters, 6 *ánnás* or 9d.; 100 bamboos, Rs. 1. 8. 0 or 3s.; string, 6 *ánnás* or 9d.; straw, Rs. 1. 12. 0 or 7s. 6d.; a pair of doors, Rs. 2. 8. 0 or 5s. This is

the kind of house the husbandmen generally live in; but the houses of the poor landless classes and day-labourers are much less costly—in fact, mere hovels. The furniture in the house of an ordinary cultivator consists of a brass platter, a brass water-jar, a small brass plate, a knife, and a coarse mat; the whole being worth about Rs. 2. 8. 0 or 5s.

THE FOOD of a shopkeeper in ordinary circumstances, having a family of five persons, would cost about 4½ *ánnás* or 6¾d. per diem, or Rs. 8. 8. 0 or 17s. per month, and would consist of the following articles:—Rice, 6¼lbs., 2 *ánnás* or 3d. per diem; split-peas and vegetables, ½ *ánná* or ¾d.; salt and oil, 1 *ánná* or 1½d.; fuel, ½ *ánná* or ¾d.; turmeric, spices, betel-nut, and tobacco, ½ *ánná* or ¾d.; total, 4½ *ánnás* or 6¾d. per diem. The expenses of an ordinary husbandman, with a family of five persons, would amount to about Rs. 6 or 12s. per month, expended on rice, salt, vegetables, oil, fuel, and a little tobacco. This represents rather the market value of the provisions consumed than the money actually expended; nearly everything that is required being grown by the cultivators themselves.

AGRICULTURE: RICE CULTIVATION.—The staple crop of Cuttack, in common with the other Districts of Orissa, is rice. The following is a list of the principal rice crops, with their varieties:—

Báli, corresponding to the *áus* or autumn rice of Bengal, is grown on high land, along the banks of rivers, and on the outskirts of villages. It is sown broadcast in May and reaped in September, the soil on which it grows being called *do-fasli* or 'two-crop' land. There are two distinct species of *báli* rice,—(*a*) the *sáthiyá*, and (*b*) the *barí*, each subdivided into many varieties. The *sáthiyá* rice derives its name from the period which it takes to come to maturity, which is believed to be exactly sixty days. A tradition relates that the *báli* rice was not made by Brahmá, the author of the Universe, but invented by the sage Viswámitra. It is accordingly considered less pure, and its use is prohibited in religious ceremonies. The higher classes seldom use it, as it is a coarse grain, difficult to digest, and apt to bring on diarrhœa in stomachs unaccustomed to it. The chief subdivision of the *sáthiyá* species is the *hárva-sáthiyá*; the principal five varieties of the *barí* species are the following:—(1) *Bakri*, (2) *inkri*, (3) *madiyá*, (4) *cháuli*, and (5) *jirái-sáli*.

The *sárad* rice, which corresponds with the *áman*, or winter rice of Bengal, is of better quality than the *báli*, and also includes two great species,—(*a*) the *lághu*, and (*b*) the *guru*. The former

is sown in May on comparatively high land, and is reaped in November. Its thirteen most important varieties are,—(1) the *chhotá-champá*, (2) *motrá*, (3) *rángiá-siná*, (4) *niyáli*, (5) *háruá*, (6) *lanká*, (7) *bodlá-champá*, (8) *sará*, (9) *nardá*, (10) *mánt*, (11) *bangri-pánchi*, (12) *palás-phul*, and (13) *bhut-mundi*. The *guru* species of *sárad* grows on low lands, being sown in May and reaped in November or December. Its twenty-one principal varieties are,—(1) *kalájirá*, (2) *narsinh-bhog*, (3) *surli*, (4) *diwán-bhog*, (5) *durgá-bhog*, (6) *nripáti-bhog*, (7) *madhu-maláti*, (8) *bángar mádhavi*, (9) *mach kantá*, (10) *dhalákeri*, (11) *kálákeri*, (12) *muktá-keri*, (13) *gopál-bhog*, (14) *najuk-badan*, (15) *ratan-churi*, (16) *makarká-mudi*, (17) *daynd-gundi*, (18) *tulsi-phul*, (19) *rang-pakhiyá*, (20) *kálá-pakhiyá*, and (21) *champá*. Some varieties are sown broadcast on low marshy ground; others are carefully reared in nursery fields, and transplanted, plant by plant, to higher and drier soils. Ground covered with a foot of water gives a good crop; and the coarser sorts will grow in six feet of water, although all must be sown in the first place in solid land. For some varieties, a soil having an admixture of sand (*dorás*), while for others, a soil not sandy (*mátiyál*), is best adapted. Some require to be sown early in the season, others late. Certain varieties will not grow unless the land is thoroughly weeded, while others flourish in spite of everything. In order to provide against the uncertainties of the season, the husbandmen sow the species which require flooding, or those that will not suffer from it, as well as those that will flourish with but a moderate rainfall. In addition to the twenty-one varieties above mentioned, the following descriptions of *guru sárad* are sown broadcast on marshy lands, which are dry in the sowing time and hot season, but which are covered with from three to seven feet of water in the rains:—(1) *Rávaná*, (2) *lanká*, (3) *balungá-mardán*, (4) *hárisankar*, (5) *dubi*, (6) *baital-pakhiyá*, (7) *kálli*, (8) *kánti-siyáli*, (9) *khurá*, (10) *khejuriyá*, and (11) *raktá-chandan*.

Besides *biálí* and *sárad*, a third genus of rice (*dálua*) is grown in Cuttack; sown in February, and reaped in May; it is a coarse, indigestible grain, with short straw, grown principally along the sea coast on marshy lands, and often requires irrigation.

No improvement seems to have taken place with regard to the quality of the rice grown in the District; and the soil is thought to be unfit for the growth of foreign varieties, although attempts have been made to introduce them. During the famine of 1866,

Burmah rice was given to the husbandmen, but the attempt failed. Carolina paddy-seed was also distributed in 1868, but with results far from encouraging. It is difficult to say whether this was, as supposed by the cultivators, owing to the unsuitability of the soil, or to want of knowledge on the part of those who used the seed.

THE EXTENT OF LAND UNDER RICE CULTIVATION has increased by about one-fourth during the last twenty-five years. A portion of this increase, however, is fictitious, as large tracts of land were purposely allowed to remain uncultivated at the time of the Settlement in 1837, in order that they might be entered as waste by the Settlement Officer, and thus be either exempted from assessment or assessed very lightly. As soon as the Settlement was concluded, such lands were gradually put under cultivation.

PRODUCTIVE POWERS OF THE LAND.—An idea prevails among the people, that although the extent of land under cultivation has increased, yet its productive powers have diminished; and the superstitious peasants attribute this to the anger of the gods, at so much of the old pasture land for cows having been lately brought under the plough. The main cause is the constant working of the soil, which allows the land no rest. A field seldom lies fallow; and the rotation of crops, although not unknown in Cuttack, is not systematically carried out. The great extent of pasture and of waste land which has been brought under cultivation may also have tended to decrease the average yield from the soil, as such new lands are often of an inferior quality, and formerly were not deemed remunerative for tillage at all. Deficiency of labour is sometimes stated as another cause of the decreased average productiveness. While, on the one hand, the large and important Public Works now being carried on in Cuttack have to a small extent withdrawn hired labour from agriculture, the increased amount of land under cultivation has, on the other hand, greatly increased the demand for it. In short, the land is just beginning to cease to be the only outlet for unskilled labour in Orissa. The land may suffer a little, but the labourers gain a great deal.

THE NAMES FOR RICE IN ITS DIFFERENT STAGES are as follow—the names generally consisting of a noun and verb, or of a verb with the word *dhán*, rice, understood. When the seed vegetates, it is called *dhán gajá delá;* when the sprout divides into two leaves, *dui-patra;* when the paddy begins to germinate in the stem, *káni-thor;* when fully germinated, *thor-hebá;* when the ears emerge from the

stem, *dhán-báháribá;* when the rice flowers, *phul uráibá* or *hát karibá;* at the end of the flowering, when a milky substance is generated in the stem, *áhár dhukibá;* when the kernel is just formed, *kshír chául*; when ripening, *páchibá;* when ready for cutting, *katá-jibá*—literally, it will be cut; when the grain is spread on the ground, and trodden out from the straw by a team of bullocks, *benglá paribá;* when winnowing, *urá-jibá;* when husked without boiling, *aruyá chául;* when husked after the seed has been loosened by boiling, *usná-chául.*

The solid preparations of rice are,—boiled rice, *bhát*, which is never sold; rice cakes, *pithá*, a few sorts of which may be sold; paddy boiled, afterwards slightly fried in the husk and then husked, *churá*, sold at about thirty-five pounds for a rupee or two shillings; fried rice, *hurum*, sold at one and a half *ánnás* a *ser*, or a little over a penny a pound. A preparation made of unhusked rice slightly crushed and fried, *khái*, is sold at the same price. The liquid preparations of rice are,—rice boiled to the consistency of paste, *jáu;* rice boiled with milk and sugar, *kshír* or *kshirá;* and *mad*, a distilled liquor made from rice, and sold at about a shilling a quart. The two first preparations are never sold.

The other Cereal Crops of the District are,—(1) *Mánduá*, a grass-like plant producing a coarse seed resembling rice, sown simultaneously with *biáli* rice on the same description of land, and reaped in September. This grain is peculiar to Orissa, and not found in Bengal. It is eaten freely by the lower orders, who prefer it to rice as cheaper, and who even consider it more nourishing. The higher classes do not use it, and declare it difficult of digestion by unaccustomed stomachs. (2) *Gaham* (wheat) and (3) *jab* (barley), sown towards the end of November, and reaped in February and March. These crops are grown on rather high land, and require a great deal of irrigation. (4) *Chiná*, a rice-like cereal, rather rare, sown about the end of November, and reaped at the end of January. (5) *Sudn*, a rice-like cereal, is not cultivated, but grows spontaneously in the paddy fields. It is used only by the lower orders. Indian corn (*bhuttá* or *makká*) is scarcely cultivated in Cuttack District. It is only grown in small gardens, and is eaten in the green-ear, roasted, as a luxury and not as an ordinary article of food. The Madras sepoys and camp followers in Cuttack city are fond of it, but it is generally considered unwholesome.

The Pulses grown in the District are,—(1) *Bút* (gram) and (2)

chaná (peas), sown about the end of November, and reaped in February. These crops are grown on high land, and require irrigation, but are not common throughout the District. (3) *Múg* (Phaseolus Mungo), (4) *birhi*, and (5) *koláth* (Dolichos biflorus), sown in October, and cut in January or February. These are generally cultivated as second crops on *biáli* and *mánduá* land, but sometimes as the sole crop of the inferior one-crop (*ekfasli*) pulse land. The heavy dews which fall during the cold season afford sufficient moisture, and rainy weather is injurious to such crops. (6) *Harar* of two kinds,—(*a*) *chaitra harar*, called after the name of the Hindu month in which it is reaped. It is sown almost simultaneously with *múg* and *birhi*, and sometimes along with them in the same field; the *múg* or *birhi* being reaped first, and the *harar* left standing till March or April, when it also is reaped. This description of *harar* is extensively cultivated, and considered more wholesome than the other variety, namely, (*b*) *náli harar*, which is grown on high lands, mostly around the homesteads; sown in June or July, and reaped in December or January.

THE FIBRES of Cuttack District are,—(1) *pát* (jute), sown in July and reaped in November, on moist lands along the banks of rivers; not a very common crop. The Jute Commission Report in 1873 returned the total area under jute in Cuttack District, and the Tributary States, at 4228 acres, the out-turn being estimated at 63,420 *maunds*, or 2322 tons. (2) *San* or hemp, sown in high lands in November, and cut in January and February. (3) *Kápás* or cotton, with its two varieties, *haldiyá* and *achhuá*. The first variety is grown mostly in the western hilly tracts of the District, being sown in June or July, and cut in October or November. The seeds produced from this species produce, in the plains, the *achhuá* variety, which is sown in December, and reaped in July. For the *achhuá* crop, *haldiyá* seed from the hills is preferred. The pods of the *achhuá* are longer than those of the *haldiya* of the plains; but those of the *haldiyá* grown in the mountainous tracts are superior to either the *achhuá* or *haldiyá* of the delta, the hill soil being much better adapted for the growth of cotton. Land newly reclaimed from jungle is the best for this crop. (4) *Simultalá*, a description of cotton growing on a large tree (Bombax heptaphylla). It is never cultivated, but grows spontaneously; the cotton is largely used for stuffing pillows and mattresses.

MISCELLANEOUS CROPS.—(1) *Sarishá* (mustard), sown in Oc

tober and cut in January or February; grows well where silt is deposited. (2) *Gab* (castor-oil), sown at the same time and on the same description of land as *sarishá*. It is generally grown as a second crop, but occasionally as a single one, on land along the banks of rivers. The oil sells at about 4 *ánnás* or 6d. a *ser* (2 lbs.), and is used extensively for lamps. (3) *Phesi* or *tísi* (linseed), sown in November and cut in February or March, as a second crop on *biáli* and *lághu sárad* rice land. (4) *Khasá* (*til*-seed—Sesamum orientale), grows on high or dry land; sown in July and cut in January. It is extensively cultivated and largely exported, principally to the Madras Presidency. (5) *Tamáku* (tobacco) is sown in deposits of slimy mud in December, and cut in March or April. Irrigation is required for this crop, which is largely cultivated, and consumed by the people in the shape of cheroots. (6) *Akhu* or *ikshu* (sugar-cane) should be grown on high land secured from flood-water, which is injurious to the plant. Constant irrigation is required; and as the crop is a very exhausting one, it cannot be taken from the same field in successive years. It is sown in April or May, and cut in February or March. (7) *Haldi* (turmeric) grows on high land which has previously been left fallow for a year; sown in July and cut in February or March. (8) *Ada* or *adrakh* (ginger) is grown on the same description of land, and sown and cut at the same time as turmeric. (9) *Methi* (Trigonella fœnum), (10) *dhaniyá* (coriander-seed), and (11) *pán-mahurí* (Pimpinella anisum) are all sown in November and cut in January or February. (12) *Piyáj* (onion) and (13) *rasun* (garlic) are sown in November and gathered in January. Both these crops require irrigation. (14) *Pán* (betel-leaf) is sown in July; and after the plant reaches maturity, in twelve or fifteen months, the leaves are plucked twice a week. This valuable creeper, when once it has fairly taken root, yields leaves for fifty or sixty years. It requires more labour than any other crop, but is also more profitable. It must be constantly irrigated, and protected from the sun by a reed roofing; so that a *pán* garden is simply a vast, low-built, mat greenhouse, very steamy inside, but of a uniform temperature all the year round. An acre yields from £88 to £100; of which, however, from £50 to £75 must be taken to replace the capital laid out by the cultivator, and the rent of the land. A fair profit to the husbandman is from £25 to £35 per acre.

AREA; OUT-TURN OF CROPS.—The latest statistics on this sub-

ject are contained in an article on Cuttack District published in *The Statistical Reporter* for October 1876, from which the following paragraphs are condensed.

The total area of the District is stated to be 2,469,300 acres, or 3858 square miles, in substitution for 3178 square miles given in the Census Report. Of this corrected area, 1,357,990 acres or 2122 square miles (55 per cent.) are returned as cultivated; 242,010 acres or 378 square miles (10 per cent.) as uncultivated but cultivable; and 869,300 acres or 1358 square miles (35 per cent.) as uncultivable waste. These figures were arrived at in the following way. 'The Collector took the total area recorded as uncultivable waste at the time of the Settlement; and in order to get an idea how far waste land had been brought under cultivation since 1840, selected certain estates as typical of the various descriptions of country,—one in the hilly region on the west, a second in the central arable tract, and a third in the saliferous belt which runs along the coast. The proportion of uncultivable waste to total area that existed in each of these estates at the time of the Settlement was first extracted from the village registers, and then the proportion at the present time was ascertained by actual measurement. The difference between the two proportions afforded a basis on which to strike a general average for the whole District. The Collector considers that the result is not surprising, when it is remembered that vast tracts of swamp and uninhabited jungle line the sea coast and stretch many miles inland; and also that many thousands of acres on the western border of the District consist of low hills covered with stunted scrub jungle, or bare plains of laterite rock, where even grass will hardly grow. So far from the area assigned for uncultivable waste being excessive, the Collector states that he would, if asked to make an estimate without papers to refer to, have fixed it much higher.'

The cultivated area is thus distributed:—Under rainy-season crops, 1,407,890 acres; under dry-season crops, 97,900 acres; total, 1,505,790. This total cultivated area is larger than the one given above, by the number of acres that yield a double crop. The rainy-season crops are subdivided as follow:—Rice, 1,097,000 acres, or 81 per cent. of the total cultivated area; other food grains, 225,000 acres; oil-seeds, 22,000 acres; fibres, 3600; cotton, 20,300; sugar, 2500; miscellaneous, 37,490 acres. The dry-season crops are thus subdivided:—Wheat, 1400 acres; barley,

500; *dálud* or spring rice, 39,000; other food grains, 36,000; oil-seeds, 11,000; tobacco, 10,000 acres. 'These figures are the result of inquiries made by *kánúngos* in certain selected *parganás*, and are approximately correct.'

The average produce of each crop per acre is thus returned:—Rice, 1000 lbs.; wheat, 150; inferior food-grains, 270; cotton, 150; oil-seeds, 300; fibres, 160; sugar, 120; tobacco, 1000; vegetables, 3500 lbs. In the number of *The Statistical Reporter* for November 1875, Lieutenant J. W. Ottley, R.E., thus summarizes the various opinions with regard to the out-turn of rice land per acre in Cuttack:—'The ordinary out-turn of ordinary rice land is 12 *maunds*, and a favourable out-turn for the three classes of lands is 20, 15, and 8 *maunds* respectively. In *Orissa*, by Dr. W. W. Hunter, it is stated that early rice land, paying a rent of about Rs. 3, gives an out-turn of 14 *maunds* of paddy; and winter rice land, paying about the same rent, will give an out-turn of 27 *maunds* of paddy. Colonel Haig, after detailing a number of estimates made in 1872, concludes thus:—"Taking 12½ *maunds* as the average yield (for 10 years) of the higher and more sandy soils, and 18¾ (the cultivator's own estimate) for the low lands, the mean would be 15 *maunds*, which just agrees with the Embankment Committee's estimate." Colonel Haig also mentions having seen fields in 1872 (a favourable year) with the following estimated out-turns:—On high land, 16¾ *maunds*, on low lands, 32½ *maunds*; and these he considered very nearly, if not quite, full crops. Mr. Toynbee's experiments in 1871 showed that the average out-turn of an acre of ordinary *sárad* rice land in Orissa in a good year was about 15 Calcutta *maunds*.'

'The Collector believes that the average produce of wheat at only 150 lbs. an acre is correct. Wheat is very seldom grown in Orissa, and only in small patches as a fancy crop. The climate is unsuited to it, and it often does not flower at all, or out of a patch one quarter of an acre in extent, one-third only will flower; and of the plants that do flower, many will not form grain. "Inferior food grains" are given at 270 lbs. per acre. Under this head are lumped together, *múg*, *arhar*, *kaláí*, *kulthi*, *birhi*, and all such small grains. Some yield more and some less, and the average out-turn of several kinds of pulse has been struck for the purposes of this report. Taken all round, these minor grains do not yield in Orissa much more than 3 *maunds* an acre. They run from 3 to 4, and occasionally up to 5 *maunds*, but not higher. Oil-seeds include sesa-

mum, castor-oil, and linseed, and are set down at 300 lbs. or 3 *maunds* 30 *sers* per acre. There is not much land in the District under cultivation with oil-seeds. The castor-oil plant is grown on alluvial soil, in the beds of the Bráhmaní and Baitaraní, but it does not yield as well as in Northern Orissa. These figures are compiled from the returns of some twenty-five *kánúngos*, which all agree so nearly that there is little room for doubt as to their correctness. Fibres consist chiefly of jute. The figure given in the statement, 160 lbs, represents the cleaned jute after it has been washed, beaten out, and dried for the market. Similarly, 120 lbs. of sugar represents the manufactured article as sold in the market, and not the sugar-canes freshly cut. The Uriyás plant their sugar-canes too close together, and the cane thus grows long, thin, and poor in saccharine matter. It is probable that if they planted them farther apart, as is done in the Panjáb, the out turn would be better.'

CONDITION OF THE PEASANTRY.—The husbandmen of Cuttack do not seem so badly off as those of Balasor District, although their holdings are generally very small. A farm of twenty-five acres or upwards is considered a very large holding; one of between ten and twenty-five acres a good-sized one; and anything much below ten acres a small one. Every respectable villager has a few acres, often not more than four or five; and the Collector estimates that small holdings of less than ten acres cover one-half of the total cultivated area of the District. Very few farms exceed twenty-five acres. Perhaps two such holdings may be found in a rural commune of four or five hundred families of husbandmen. The standard by which a cultivator is judged does not consist so much in the extent of his fields, as in the number of ploughs he can command. This, however, by no means represents correctly the worth of his farm, inasmuch as some kinds of crop, such as *bádí* rice and sugar-cane, require much more ploughing than others. The amount of ploughing required also varies according to the nature of the soil, the land in low-lying parts not needing so much or so deep ploughing as in the higher tracts. In the case of a holding consisting of two-crop and one-crop land in fair proportions, six acres are supposed to represent what is technically called 'plough' of land; that is, the quantity which a husbandman with a single plough and a single pair of bullocks can cultivate. In the case of a farm consisting only of *sáráá* or one-crop land, one pair of bullocks would be able to plough eight or in a low-lying situation ten or twelve acres. A holding of

twelve acres enables a Cuttack cultivator to live quite as well as a respectable shopkeeper, or as a person earning Rs. 8 or 16s. a month. His family can afford to eat more food than either of these two classes. One-half of the peasantry may be set down as really well off. One-fourth are in debt to the village money-lender or the landlord. The remaining one-fourth, who have very small holdings of from one to four acres, and who eke out a livelihood by hiring themselves as day-labourers to richer husbandmen, are just able to live. Able-bodied pauperism is unknown, except among the religious mendicants.

I quote the following paragraphs *in extenso* from a Report by the Collector upon the condition of the agricultural and labouring classes of Cuttack, which is published in the Commissioner's Annual Administration Report for 1872-73:—'A great proportion of the people live on the cheapest sort of rice, the coarsest sort of pulse, a little salt, and some cheap vegetables. Their dress is a plain cotton cloth, either manufactured in the country, or imported from Europe; the former is more lasting, but the latter is cheaper. As a man gets richer, a considerable proportion of his increased income goes to improve his food; he buys a better sort of rice and pulse, spices and fish, and a more liberal supply of salt. His next rise in prosperity is marked by the purchase of brass vessels and silver ornaments (which constitute his reserve fund), or of cattle. The great mortality among cattle at certain seasons must do much to retard the progress of prosperity among the agricultural classes. Year after year, in the hot weather, numbers of cattle die of a disease called *thákuráni*. In the rains, another formidable disease known as *tantikátá* prevails, but not to such an extent as *thákuráni*. It is said to be especially fatal to buffaloes. Another prevalent disease is *chowwá*, which appears to be the foot-and-mouth distemper of Europe. Considering that every cultivated field in the District is ploughed by oxen, it is evident that this regular mortality among cattle, and their consequent high price, must be a heavy tax on the tenant farmer. There is no doubt that a very large proportion of the sums spent in Orissa on irrigation works leaves the Province again in the shape of profits or savings of the numerous European, Bengalí, and Madraje officials and contractors employed; nevertheless, there can be little doubt that the standard of comfort has risen, and is rising, among the agricultural classes. But the uncertainty of the demand for labour tells a good deal on the land-

less classes, and is the cause of the very numerous cases of lurking house trespass and theft, which, with suicide, are the only crimes that can be called prevalent in the District. The canal works do not appear to have made much change in this respect, probably because many of those who work on the canals squander their earnings in the *tárí* or spirit and *gánjá* shops, and because many of the landless class prefer the chance of getting a few roods of land for the season at a rent of half the crop, to going to a distance from their homes for regular work.

'I have every reason to believe that a change for the better has taken place, and is steadily progressing. Vast sums of money have been spent in the country on irrigation works; and although a proportion of this is taken away in salaries of foreigners, much of it must and does sink into the country. Labour is abundant, and is paid for at remunerative rates. Trade has improved; exports and imports have increased. A large number of people are better housed, clothed, and fed, and have more home comforts than formerly. The improvement has probably affected the mercantile and labouring classes more than the actual cultivators. I have, however, observed, even in remote villages, a greater air of comfort —a better thatch to the houses; and this in Orissa is one of the best signs of improvement, as it represents about the first thing an Uriyá cultivator does when his circumstances begin to improve. I notice in the larger villages and Subdivisional stations a few more shops; and the shops which fell into ruin during the famine have been restored. In Cuttack city there is a great increase in shops and trade, and a very remarkable addition to the masonry houses and shops. The Government workshops at the canal works have educated a superior class of artisans; and the mission orphanages are yearly sending forth well-educated young couples into the world, whose conduct is generally unexceptionable, and must gradually exert an influence on the general population.'

THE RENT LAW.—The Settlement Record has left but little room for disputes about enhancement of rent under Act x. of 1859. The only lands liable to enhancement are those belonging to the non-resident (*páhí*) husbandmen, for which no leases were granted by the Settlement officers; and such leases of the resident (*thání*) cultivators as have lapsed from the holders dying without heirs, or from other causes. The peasantry do not avail themselves much of Act x. for establishing occupancy rights, either from inability to main-

tain their claims, or from the conviction that they consult their own interests better by conciliating than by defying their landlords. Act x. is, therefore, almost inoperative as an enhancement law; and the Collector reports that the rates of rent are the same as if it had not been passed.

THE DOMESTIC ANIMALS of the District consist of cows and buffaloes, kept for milk; and oxen for the plough, or as beasts of burden. The same bullocks are often used for ploughing during the rains, and as carriers of produce during the hot weather, when they are not needed in the fields. Herds of goats and sheep are almost unknown; but a brisk export trade takes place in horned cattle from the breeding-grounds on the coast, *via* Midnapur, to Calcutta. This trade has been of late on the decline, owing to the decrease in the amount of land left for pasture, and to cattle diseases mentioned above, and more fully detailed in my Statistical Account of Balasor District. An ordinary cow in Cuttack fetches Rs. 12 or £1, 4s. 0d.; a pair of ploughing oxen, Rs. 30 or £3; a pair of buffaloes, Rs. 80 or £8; a score of sheep, Rs. 80 or £8; a score of kids six months old, £2; a score of full-grown pigs, Rs. 120 or £12.

WAGES of agricultural day-labourers are generally paid in kind, and do not seem to have altered since 1850. Such wages were then about twelve to fifteen pounds of unhusked rice per diem; and the same rate continues at the present day, except when they are calculated according to the money value of the labourer's hire. All labour, however, paid by money wages has increased in price; and in the large towns, such as Cuttack and Jájpur, field work is now frequently paid in this way. Agricultural labour is always paid at a lower rate than other unskilled work. Day-labourers, other than agricultural, now receive from 1 *ánná* 4 *pie* to 1 *ánná* 6 *pie* (1¾d. to 2¼d.) in the rural tracts, and 2½ *ánnás* (3¾d.) a day in the towns; in 1850 the wages were three-fourths of an *ánná* (slightly over a penny) in the rural tracts, and 1 *ánná* 6 *pie* (2¼d.) in the towns. Smiths and carpenters now get 2½ *ánnás* (3¾d.) in the country, and 4 *ánnás* or 6d. in the towns; in 1850 their wages were 1½ *ánnás* (2¼d.) and 3 *ánnás* (4½d.) respectively. Bricklayers, who are only employed in the towns, earned 1½ *ánnás* (2¼d.) a day in 1850, and now receive from 3 to 4 *ánnás* (4½d. to 6d.). On the whole, it may be said that labour fetches double in the towns what it does in the country; and that, during the last twenty-five years, from

1850 to 1875, the rates of wages have risen from thirty-five to forty per cent.

PRICES of food-grains do not seem to have increased in anything like the same proportion. The price of the best husked rice was about 21 *sers* per rupee, or 5s. 4d. a hundredweight, in 1860; about 20 *sers* per rupee, or 5s. 7d. a hundredweight, in 1868; and 17 *sers* per rupee, or 6s. 7d. a hundredweight, in 1870. Best unhusked paddy sold at 45 *sers* per rupee, or 2s. 6d. a hundredweight, in 1860; 42 *sers* for the rupee, or 2s. 8d. per hundredweight, in 1868; and 40 *sers* per rupee, or 2s. 10d. a hundredweight, in 1870. Coarse rice, such as that used by labourers, sold at 43 *sers* per rupee, or 2s. 7d. a hundredweight, in 1860; 31 *sers* per rupee, or 3s. 7d. a hundredweight, in 1868; and 32 *sers* per rupee, or 3s. 6d. a hundredweight, in 1870. The same paddy, unhusked, sold at 87 *sers* per rupee, or 1s. 4d. a hundredweight, in 1860; 65 *sers* per rupee, or 1s. 9d. a hundredweight, in 1868; and 78 *sers* per rupee, or 1s. 6d. a hundredweight, in 1870. Wheat stood at 24 *sers* per rupee, or 4s. 8d. a hundredweight, in 1860; 21 *sers* for the rupee, or 5s. 4d. a hundredweight, in 1868; and 12 *sers* per rupee, or 9s. 4d. a hundredweight, in 1870. In the famine year (1866), the maximum prices reached were as follow:—Best cleaned rice, 3½ *sers* per rupee, or 32s. a hundredweight; coarse rice, 4 *sers* per rupee, or 28s. a hundredweight. As might be expected, prices range highest in the vicinity of Cuttack town, and lowest in the distant Subdivision of Kendrápárá.

The following tables, compiled from Mr. A. P. MacDonnell's 'Report on the Food-Grain Supply of Bengal,' exhibit the prevailing rates for ordinary rice, pulses, and wheat, in the Cuttack, Jájpur, and Kendrápárá Subdivisions, for each month of the seven years from 1868 to 1874; also the average annual rates for the same period:—

Prices of Food-Grains in Cuttack District for each Month of the Seven Years from 1868 to 1874.

Month and Year.	Cuttack Subdivision.						Jajpur Subdivision.						Kendrapara Subdivision.					
	Rice.		Pulses.		Wheat.		Rice.		Pulses.		Wheat.		Rice.		Pulses.		Wheat.	
	Amount per rupee.	Price per cwt.	Amount per rupee.	Price per cwt.	Amount per rupee.	Price per cwt.	Amount per rupee.	Price per cwt.	Amount per rupee.	Price per cwt.	Amount per rupee.	Price per cwt.	Amount per rupee.	Price per cwt.	Amount per rupee.	Price per cwt.	Amount per rupee.	Price per cwt.
	sers.	*s. d.*	*sers.*	*s. d.*	*sers.*	*s. d.*	*sers.*	*s. d.*	*sers.*	*s. d.*	*sers.*	*s. d.*	*sers.*	*s. d.*	*sers.*	*s. d.*	*sers.*	*s. d.*
JANUARY 1868,	32	3 6	26	4 4	16	7 0	32	3 6	22	5 1	10	11 2	...	...	...	...	...	...
1869,	25	4 6	21	5 4	12	9 4	22	5 1	23	4 10	10	11 2	20	5 7	15	7 6	10	11 2
1870,	34	3 4	28	4 0	8	14 0	31	3 7	25	4 6	6	18 8	45	2 6	24	4 8	5	22 5
1871,	33	3 5	26	4 4	12	9 4	40	2 10	22	5 1	10	11 2	42	2 8	28	4 0	10	11 2
1872,	28	4 0	32	3 6	20	5 7	34	3 4	23	4 10	15	7 6	38	3 0	33	3 5	20	5 7
1873,	34	3 4	32	3 6	16	7 0	34	3 4	31	3 7	17	6 7	42	2 8	...	...	13	8 7
1874,	26	4 4	26	4 4	13	8 7	28	4 0	23	4 10	15	7 6	42	2 8	...	...	16	7 0
Average,	30	3 9	27	4 2	14	8 0	31	3 7	23	4 10	12	9 4	38	3 0	25	4 6	12	9 4
FEBRUARY 1868,	32	3 6	29	3 10	18	6 3	32	3 6	23	4 10	10	11 2	...	...	...	...	...	...
1869,	25	4 6	21	5 4	12	9 4	22	5 1	23	4 10	10	11 2	24	4 8	16	7 0	10	11 2
1870,	37	3 0	26	4 4	11	10 2	34	3 4	27	4 2	7	16 0	41	2 9	29	3 10	9	12 5
1871,	33	3 5	29	3 10	13	8 7	42	2 8	31	3 7	10	11 2	42	2 8	24	4 8	11	10 2
1872,	32	3 6	32	3 6	13	8 7	32	3 6	23	4 10	15	7 6	42	2 8	...	...	20	5 7
1873,	30	3 9	30	3 9	16	7 0	34	3 4	23	4 10	17	6 7	42	2 8	...	...	13	8 7
1874,	26	4 4	26	4 4	13	8 7	34	3 4	23	4 10	11	10 2	38	3 0	...	...	16	7 0
Average,	31	3 7	28	4 0	13	8 7	33	3 5	25	4 6	11	10 2	38	3 0	23	4 10	13	8 7
MARCH 1868,	33	3 5	26	4 4	21	5 4	32	3 6	22	5 1	10	11 2	...	...	...	...	...	...
1869,	25	4 6	21	5 4	12	9 4	25	4 6	22	5 1	10	11 2	24	4 8	12	9 4	10	11 2
1870,	35	3 2	26	4 4	8	14 0	34	3 4	27	4 12	10	11 2	37	3 0	25	4 6	13	8 7
1871,	32	3 6	29	3 10	13	8 7	36	3 1	34	3 4	10	11 2	42	2 8	39	2 11	14	8 0
1872,	32	3 6	32	3 6	18	6 3	32	3 6	23	4 10	15	7 6	35	3 2	...	...	21	5 4
1873,	30	3 9	29	3 10	16	7 0	34	3 4	31	3 7	17	6 7	42	2 8	...	...	13	8 7
1874,	26	4 4	28	4 0	17	6 7	34	3 4	23	4 10	11	10 2	42	2 8	...	...	16	7 0
Average,	30	3 9	27	4 2	15	7 6	32	3 6	26	4 4	12	9 4	37	3 0	25	4 6	14	8 0

PRICES OF FOOD-GRAINS IN CUTTACK DISTRICT—*continued.*

Month and Year.	Cuttack Subdivision.						Jajpur Subdivision.						Kendrapara Subdivision.					
	Rice.		Pulses.		Wheat.		Rice.		Pulses.		Wheat.		Rice.		Pulses.		Wheat.	
	Amount per rupee.	Price per cwt.	Amount per rupee.	Price per cwt.	Amount per rupee.	Price per cwt.	Amount per rupee.	Price per cwt.	Amount per rupee.	Price per cwt.	Amount per rupee.	Price per cwt.	Amount per rupee.	Price per cwt.	Amount per rupee.	Price per cwt.	Amount per rupee.	Price per cwt.
	sers.	*s. d.*	*sers.*	*s. d.*	*sers.*	*s. d.*	*sers.*	*s. d.*	*sers.*	*s. d.*	*sers.*	*s. d.*	*sers.*	*s. d.*	*sers.*	*s. d.*	*sers.*	*s. d.*
APRIL 1868,	32	3 6	26	4 4	21	5 4	27	4 2	21	5 4	14	...	...	...	...	...	...	...
APRIL 1869,	28	4 0	26	4 4	12	9 4	22	5 1	23	4 10	11	10 2	20	5 7	12	9 4	10	11 2
APRIL 1870,	37	3 0	26	4 4	11	10 2	36	3 1	31	3 7	13	8 7	36	3 1	25	4 6	12	9 4
APRIL 1871,	32	3 6	29	3 10	13	8 7	36	3 1	34	3 4	11	10 2	42	2 8	39	2 11	16	7 0
APRIL 1872,	30	3 9	30	3 9	17	6 7	34	3 4	22	5 1	15	7 6	32	3 6	...	...	18	6 3
APRIL 1873,	33	3 5	29	3 10	18	6 3	34	3 4	31	3 7	19	5 11	42	2 8	...	...	13	8 7
APRIL 1874,	29	3 10	29	3 10	16	7 0	34	3 4	23	4 10	21	5 4	42	2 8	...	...	23	4 10
Average,	32	3 6	28	4 0	15	7 6	32	3 6	27	4 2	15	7 6	36	3 1	25	4 6	15	7 6
MAY 1868,	32	3 6	26	4 4	21	5 4	27	4 2	21	5 4	14	8 0	...	...	...	...	...	...
MAY 1869,	24	4 8	26	4 4	14	8 0	22	5 1	23	4 10	10	11 2	20	5 7	12	9 4	15	7 6
MAY 1870,	34	3 4	24	4 8	11	10 2	32	3 6	25	4 6	10	11 2	42	2 8	25	4 6	12	9 4
MAY 1871,	32	3 6	29	3 10	13	8 7	34	3 4	34	3 4	8	14 0	42	2 8	39	2 11	17	6 7
MAY 1872,	29	3 10	28	4 0	17	6 7	34	3 4	23	4 10	11	10 2	28	4 0	...	...	16	7 0
MAY 1873,	30	3 9	28	4 0	18	6 3	34	3 4	31	3 7	19	5 11	42	2 8	...	...	13	8 7
MAY 1874,	28	4 0	28	4 0	13	8 7	34	3 4	26	4 4	21	5 4	42	2 8	...	...	23	4 10
Average,	30	3 9	27	4 2	15	7 6	31	3 7	26	4 4	14	8 0	36	3 1	25	4 6	16	7 0
JUNE 1868,	32	3 6	26	4 4	21	5 4	23	4 10	21	5 4	16	7 0	...	...	...	...	...	...
JUNE 1869,	21	5 4	23	4 10	14	8 0	21	5 4	23	4 10	10	11 2	24	4 8	24	4 8	9	12 5
JUNE 1870,	28	4 0	24	4 8	11	10 2	33	3 5	23	4 10	10	11 2	42	2 8	25	4 6	12	9 4
JUNE 1871,	32	3 6	29	3 10	10	11 2	34	3 4	34	3 4	15	7 6	42	2 8	36	3 1	19	5 11
JUNE 1872,	25	4 6	29	3 10	16	7 0	34	3 4	22	5 1	11	10 2	29	3 10	...	...	17	6 7
JUNE 1873,	29	3 10	26	4 4	15	7 6	34	3 4	31	3 7	19	5 11	42	2 8	...	...	16	7 0
JUNE 1874,	25	4 6	26	4 4	12	9 4	34	3 4	23	4 10	17	6 7	42	2 8	...	...	23	4 10
Average,	27	4 2	26	4 4	14	8 0	30	3 9	25	4 6	14	8 0	37	3 0	28	4 0	16	7 0

PRICES OF FOOD-GRAINS IN CUTTACK DISTRICT—*continued.*

Month and Year.	Cuttack Subdivision.						Jajpur Subdivision						Kendrapara Subdivision					
	Rice		Pulses		Wheat		Rice		Pulses		Wheat		Rice		Pulses.		Wheat	
	Amount per rupee	Price per cwt	Amount per rupee	Price per cwt	Amount per rupee	Price per cwt	Amount per rupee	Price per cwt.	Amount per rupee	Price per cwt	Amount per rupee	Price per cwt	Amount per rupee	Price per cwt	Amount per rupee	Price per cwt	Amount per rupee	Price per cwt.
	sers	*s d*	*sers*	*s d*	*sers*	*s d*	*sers*	*s d*	*sers*	*s d*	*sers*	*s d*	*sers*	*s d*	*sers*	*s d*	*sers*	*s d*
JULY 1868,	32	3 6	26	4 4	21	5 4	19	5 11	17	6 7	12	9 4	22	5 1	...	..		
1869,	22	5 1	24	4 8	9	12 5	18	6 3	20	5 7	9	12 5	24	4 8	24	4 8	9	12 5
1870,	32	3 6	22	5 1	11	10 2	34	3 4	23	4 10	10	11 2	42	2 8	25	4 6	12	9 4
1871,	32	3 6	29	3 10	13	8 7	34	3 4	26	4 4	13	8 7	42	2 8	33	3 5	19	5 11
1872,	16	7 0	20	5 7	16	7 0	34	3 4	22	5 1	11	10 2	27	4 2	...		18	6 3
1873,	29	3 10	25	4 6	16	7 0	34	3 4	31	3 7	19	5 11	42	2 8			16	7 0
1874	26	4 4	25	4 6	14	8 0	31	3 7	21	5 4	15	7 6	42	2 8			23	4 10
Average,	27	4 2	24	4 8	14	8 0	29	3 10	23	4 10	13	8 7	34	3 4	27	4 2	16	7 0
AUGUST 1868,	32	3 6	26	4 4	21	5 4	19	5 11	19	5 11	14	8 0	20	5 /	..		..	..
1869	22	5 1	24	4 8	9	12 5	18	6 3	21	5 4	9	12 5	24	4 8	24	4 8	9	12 5
1870	32	3 6	24	4 8	11	10 2	33	3 5	23	4 10	9	12 5	42	2 8	26	4 4	12	9 4
1871,	32	3 6	29	3 10	13	8 7	34	3 4	31	3 7	14	8 0	42	2 8	30	3 9	20	5 7
1872	22	5 1	17	6 7	18	6 3	26	4 4	21	5 4	11	10 2	39	3 9			16	7 0
1873	30	3 9	26	4 4	21	5 4	34	3 4	23	4 10	17	6 7	42	2 8			16	7 0
1874	26	4 4	25	4 6	16	7 0	34	3 4	21	5 4	14	8 0	42	2 8		...	17	6 7
Average	28	4 0	24	4 8	15	7 6	28	4 0	23	4 10	12	9 4	34	3 4	27	4 2	15	7 6
SEPTEMBER 1868	32	3 6	26	4 4	21	5 4	21	5 4	21	5 4	16	7 0						
1869	20	5 7	24	4 8	8	14 0	18	6 3	21	5 4	7	16 0	26	4 4	24	4 8	9	12 5
1870	26	4 4	19	5 11	13	8 7	28	4 0	21	5 4	9	12 5	42	2 8	27	4 2	10	11 2
1871	37	3 0	29	3 10	20	5 7	34	3 4	31	3 7	14	8 0	42	2 8	31	3 7	20	5 7
1872	21	5 4	19	5 11	17	6 7	26	4 4	21	5 4	11	10 2	36	3 1	•		16	7 0
1873	32	3 6	28	4 0	18	6 3	33	3 5	24	4 8	17	6 7	42	2 8			16	7 0
1874	21	5 4	22	5 1	16	7 0	28	4 0	21	5 4	13	8 7	34	3 4			14	8 0
Average	27	4 2	24	4 8	16	7 0	27	4 2	23	4 10	12	9 4	32	3 6	27	4 2	14	8 0

PRICES OF FOOD-GRAINS IN CUTTACK DISTRICT—*continued.*

Month and Year	Cuttack Subdivision						Jajpur Subdivision						Kendrapara Subdivision					
	Rice		Pulses		Wheat		Rice		Pulses		Wheat		Rice		Pulses		Wheat	
	Amount per rupee	Price per cwt	Amount per rupee	Price per cwt	Amount per rupee	Price per cwt	Amount per rupee	Price per cwt	Amount per rupee	Price per cwt	Amount per rupee	Price per cwt	Amount per rupee	Price per cwt	Amount per rupee	Price per cwt	Amount per rupee	Price per cwt
	sers	*s d*	*sers*	*s d*	*sers*	*s d*	*sers*	*s d*	*sers*	*s d*	*sers*	*s d*	*sers*	*s d*	*sers*	*s d*	*sers*	*s d*
OCTOBER 1868,	29	3 10	29	3 10	21	5 4	21	5 4	16	7 0	15	7 6	21	5 4	...	...	...	...
1869,	18	6 3	24	4 8	8	14 0	21	5 4	21	5 4	6	18 8	31	3 7	24	4 8	7	16 0
1870,	32	3 6	18	6 3	12	9 4	36	3 1	20	5 7	10	11 2	43	2 7	24	4 8	10	11 2
1871,	37	3 0	29	3 10	20	5 7	37	3 0	28	4 0	16	7 0	42	2 8	34	3 4	20	5 7
1872,	34	3 4	21	5 4	18	6 3	26	4 4	21	5 4	11	10 2	26	4 4	...		16	7 0
1873,	32	3 6	26	4 4	16	7 0	33	3 5	24	4 8	17	6 7	48	2 4	...		16	7 0
1874,	24	4 8	22	5 1	17	6 7	28	4 0	21	5 4	11	10 2	37	3 0	...	...	13	8 7
Average,	29	3 10	24	4 8	16	7 0	29	3 10	22	5 1	12	9 4	35	3 2	27	4 2	13	8 7
NOVEMBER 1868,	21	5 4	22	5 1	16	7 0	18	6 3	21	5 4	15	7 6	19	5 11	11	10 2	17	6 7
1869,	33	3 5	25	4 6	8	14 0	28	4 0	21	5 4	6	18 8	40	2 10	24	4 8	5	22 5
1870,	33	3 5	26	4 4	13	8 7	42	2 8	21	5 4	11	10 2	42	2 8	24	4 8	11	10 2
1871,	29	3 10	32	3 6	21	5 4	34	3 4	31	3 7	17	6 7	42	2 8	39	2 11	20	5 7
1872,	38		25	4 6	18	6 3	26	4 4	21	5 4	11	10 2	26	4 4	...		16	7 0
1873,	26	4 4	28	4 0	13	8 7	34	3 4	22	5 1	17	6 7	48	2 4	...		18	6 3
1874,	26	4 4	23	4 10	18	6 3	31	3 7	18	6 3	11	10 2	37	3 0	...		13	8 7
Average,	29	3 10	26	4 4	15	7 6	30	3 9	22	5 1	13	8 7	36	3 1	24	4 8	14	8 0
DECEMBER 1868,	25	4 6	21	5 4	12	9 4	27	4 2	21	5 4	15	7 6	19	5 11	13	8 7	15	7 6
1869,	35	3 2	32	3 6	7	16 0	28	4 0	23	4 10	6	18 8	42	2 8	24	4 8	5	22 5
1870,	32	3 6	26	4 4	13	8 7	42	2 8	23	4 10	11	10 2	42	2 8	24	4 8	10	11 2
1871,	32	3 6	30	3 9	20	5 7	39	2 11	34	3 4	17	6 7	42	2 8	37	3 0	20	5 7
1872,	34	3 4	21	5 4	16	7 0	26	4 4	21	5 4	11	10 2	26	4 4	...		16	7 0
1873,	24	4 8	26	4 4	13	8 7	34	3 4	31	3 7	18	6 3	42	2 8			21	5 4
1874,	29	3 10	22	5 1	18	6 3	31	3 7	18	6 3	11	10 2	31	3 7			13	8 7
Average,	30	3 9	25	4 6	14	8 0	32	3 6	24	4 8	13	8 7	35	3 2	24	4 8	14	8 0

STATEMENT SHOWING AVERAGE ANNUAL PRICE OF RICE, PULSES, AND WHEAT, FOR EACH OF THE SEVEN YEARS 1868-1874.

Year.	Cuttack Subdivision.						Jajpur Subdivision.						Kendrapara Subdivision.					
	Rice.		Pulses.		Wheat.		Rice.		Pulses.		Wheat.		Rice.		Pulses.		Wheat.	
	Amount per rupee.	Price per cwt.	Amount per rupee.	Price per cwt.	Amount per rupee.	Price per cwt.	Amount per rupee.	Price per cwt.	Amount per rupee.	Price per cwt.	Amount per rupee.	Price per cwt.	Amount per rupee.	Price per cwt.	Amount per rupee.	Price per cwt.	Amount per rupee.	Price per cwt.
	sers.	*s. d.*	*sers.*	*s. d.*	*sers.*	*s. d.*	*sers.*	*s. d.*	*sers.*	*s. d.*	*sers.*	*s. d.*	*sers.*	*s. d.*	*sers.*	*s. d.*	*sers.*	*s. d.*
1868, . . .	30	3 9	26	4 4	19	5 11	25	4 6	20	5 7	13	8 7	20	5 7	12	9 4	16	7 0
1869, . . .	25	4 6	24	4 8	12	9 4	22	5 1	22	5 1	9	12 5	27	4 2	20	5 7	9	12 5
1870, . . .	33	3 5	24	4 8	11	10 2	35	3 2	24	4 8	10	11 2	42	2 8	25	4 6	11	10 2
1871, . . .	32	3 6	29	3 10	15	7 6	36	3 1	30	3 9	13	8 7	42	2 8	34	3 4	17	6 7
1872, . . .	28	4 0	26	4 4	17	6 7	30	3 9	22	5 1	10	11 2	31	3 7	33	3 5	18	6 3
1873, . . .	29	3 10	28	4 0	16	7 0	34	3 4	28	4 0	18	6 3	43	2 7	...	...	16	7 0
1874, . . .	26	4 4	25	4 6	15	7 6	32	3 6	22	5 1	14	8 0	39	2 11	...	...	18	6 3
Average for 7 years, .	29	3 10	26	4 4	15	7 6	31	3 7	24	4 8	13	8 7	35	3 2	25	4 6	15	7 6

The averages showing the prices of pulses and wheat in Kendrápárá Subdivision have been calculated from returns of a few months only.

THE AGRICULTURAL IMPLEMENTS required by a small husbandman with a holding of one 'plough' of land, or about six acres, are a pair of oxen, a plough (*nángal*), harrow (*mái*), weeder (*bidá*), two sorts of spades (*kánk* and *kurí*), a sickle (*dáo*), a hatchet (*káturí*), and an iron instrument for digging holes (*khánti*). I give the Uriyá names; in Bengalí, *dáo* means a hatchet. The cost of the whole is about Rs. 40 or £4, including Rs. 30 or £3 as the cost of the oxen.

WEIGHTS AND MEASURES.—Rice is sold in the country villages, and on the fields to grain merchants, according to the following measure:—4 *chhaták* = 1 *páo*; 4 *páo* = 1 *ser*; 12 *ser* = 1 *gauni*; 8 *gauni* = 1 *bharan*. The *gauni* is simply a basket, which varies in size in different parts of the District. The measure used by shopkeepers in towns and merchants in selling rice is the following:—4 *paisá* = 1 *chhaták*; 4 *chhaták* = 1 *páo*; 4 *páo* = 1 *ser*; 5 *ser* = 1 *pasuri*; 8 *pasuri* = 1 *maund*. The Cuttack *ser*, which weighs 105 *tolás*, or over two and a half pounds avoirdupois, is used for all articles except grain on the field or in the country villages, and salt. This last is sold according to the Calcutta *ser*, equal to 80 *tolá* weight, or two pounds avoirdupois. Gold and precious stones are weighed according to the following standard:—4 *dhán* = 1 *rati*; 8 *rati* = 1 *máshá*; 10 *máshá* = 1 *bhari* or *tolá*, equal to 180 grains Troy weight. Land measure is as follows:—4 *káni* = 1 *biswá*; 16 *biswá* = 1 *gúnt*; 25 *gúnt* = 1 *mán*, equal to an English acre; 20 *mán* = 1 *bárí*. Distance is measured as follows:—4 *anguli* = 1 *múshti*, 3 *múshti* = 1 *chákhand* (span); 2 *chákhand* = 1 *hát* (cubit); 4 *hát* = 1 *dhanu*; 2000 *dhanu* = 1 *kos*; 4 *kos* = 1 *yojan*, or nine miles. During the Musalmán and Marhattá rule, the current coin of the Province was the *kaurí* (cowrie). Not only were private transactions carried on, but Government salaries were paid in this measure. It has now nearly disappeared from the towns and *bázárs*, but still continues current in the villages. The standard is as follows:—4 *kránti* = 1 *kaurí* (cowrie); 4 *kaurí* = 1 *gandá*; 20 *gandá* (80 cowries) = 1 *pan*; 16 *pan* (1280 cowries) = 1 *káhán*. The number of cowries to the rupee varies; the present rate is reported at 3584; in 1804 it was as high as 7680. It may be estimated, generally speaking, that 3 *káháns* or 3840 cowries = a rupee or two shillings.

LANDLESS LABOURING CLASSES.—A distinct class of day-labourers, neither possessing nor renting any lands, has always existed in

Cuttack District. It is composed chiefly of Pans, Bauris, Kandárás, and other very low castes, with some families of Chásás. The number of these landless day-labourers is said to have diminished of late years, while the demand for labour has increased, in consequence of the large public works now in progress. In short, the enhanced prices of agricultural produce have given an impetus to tillage, and made it pay better to settle on inferior and formerly uncultivated land, than to go out for hire. The price of labour has risen accordingly; and the condition of the labouring class has so much improved, as to attract the poorer sort of husbandmen to Cuttack town, at seasons when field work is suspended. Agricultural labourers are of two sorts—permanent and occasional. The former generally receive in advance a small sum of money, about Rs. 5 or Rs. 6, without interest, which they must make good before quitting the service. They are paid daily wages in paddy, at a slightly lower rate than that which the occasional labourers receive; but they get a piece of cloth once a year from their employer, and are allowed to hold half an acre of land rent-free, which they cultivate on their own account with their master's plough and bullocks. The occasional labourers are merely extra hands for weeding and reaping. When employed on the former work, they are paid at the rate of 7½ *sers* or 15 pounds of unhusked rice per diem. At harvest, they are paid by bundles, at the rate of one for every twelve or fifteen bundles of the crop cut. Women and children are also largely employed in field work at these seasons, but at lower rates.

Land Settlement.—Orissa differs from the rest of Bengal Proper, inasmuch as the Settlement for the Government land revenue is not of a fixed and permanent character, but is made for a term of years only, subject to an increased assessment at the end of every fresh period. The Settlements are now made to run for thirty years; but in the earlier years of our administration they were for much shorter periods. Mr. Toynbee, in his valuable book on Orissa, gives the following particulars regarding the method adopted in forming the first of these temporary Settlements, the same principles were followed in the subsequent Settlements. I quote the following paragraphs in a condensed form, but retain Mr. Toynbee's own words:—

'In September 1804, the "Commissioners for the affairs of Cuttack" issued instructions for making the first regular Settlement

of the Province, which were subsequently embodied in Regulation xii. of 1805. It was to be for one year only, 1804-5, and was to be followed by a triennial Settlement. One of the most important objects in view was to bring deserted villages into cultivation. As the Marhattás and their predecessors had based their demands on the amount of land actually under the plough, without reference to the amount of cultivable land in each village, very little encouragement had hitherto been held out to cultivators and proprietors to increase the cultivated area. The Uriyá *rayat*, whose poverty was his only protection against robbery, extortion, and oppression, cared only to grow sufficient rice to support himself and his family for the year. Liberal terms, therefore, were to be offered to those who would bring waste lands under cultivation, but with the following condition expressed in the Commissioners' instructions to the Collector:—"You will bind the engaging parties, however, in the most positive manner, and under a severe penalty, not to bring or entice *rayats* from lands already cultivated, but to collect their *rayats* from without the Company's territories." This affords us considerable insight into the wretched state of the Province under Marhattá oppression and misrule. The independent tributary Rájás afforded protection in their hilly and jungly retreats to fugitive *rayats* from the Mughulbandí; and not only gave them land on more favourable terms, but also held out a reasonable prospect of their being able to enjoy the fruits of it. At the present day, the difficulty is not to find *rayats* to till the soil, but to find land for the *rayats* to cultivate.

'The Collector was ordered to proceed himself into the interior, and personally direct the Settlement operations, fixing the amount of assessment on each estate upon "principles of equity and moderation, rather than trying to raise the collections to the utmost height." The services of the *mufassal kánúngos* were directed to be utilized "for the purpose of keeping and arranging the accounts of the District, and in aiding the Collector with information in respect to the customs and usage of the country." The lands which the Marhattás had granted to the *sadr kánúngos* at a low rent, in payment of their services to the State, were to be settled with them at those rates, in the hope of inducing them to furnish such information as they undoubtedly possessed of the resources of the District. The hope proved but a vain one. Neither threat nor entreaty could prevail on them to give the slightest assistance or information. Equally unsuccessful

was the attempt to procure detailed information from the *ámils* of the Marhattá Government, and from the *zamíndárs* themselves. The *hastobúd* papers of the former would have afforded very useful information. They were too valuable, however, to be parted with. By threatening *zamíndárs* that they would report that their estates had, according to these papers, been under-assessed, the *ámils* derived a comfortable income from their documents. The *amlás* or officials were, as a rule, in collusion with the *zamíndárs*, and themselves held estates in other names (*benámí*). The interest of the *mukaddams* was also opposed to that of the Government, and the *rayats* were too ignorant to know anything beyond their own immediate concerns. Thus, every man's hand was either actively or passively against the Collector, and the interests of individuals were in direct opposition to those of the Government.

'With regard to rent-free tenures, it was laid down that all lands which had been held rent-free during the two previous years, 1802-3 and 1803-4, should continue to be so held during the currency of the Settlement. They were to be settled with the persons in possession, on their executing agreements to be responsible for the preservation of the peace, and to abstain from the collection of *sayer*, or other dues of any kind. It was, no doubt, intended that a careful scrutiny should afterwards be made into the validity of all claims to hold land rent-free under the above rule. Unfortunately, circumstances prevented this investigation being made until long afterwards. The selection of the two years 1802-3 and 1803-4, as those during which the possession of land rent-free gave a *prima facie* title to the occupier to continue to hold it on the same terms, was peculiarly unfortunate, and resulted in a large loss of Government revenue. During those two years, the Marhattás had little leisure to devote to the details of revenue business. Their own superior officers, with no one to supervise them, contented themselves with their own aggrandisement, and did not interfere with their subordinates, so long as the interests of the latter did not clash with their own. The consequence was that every one, from the *ámil* to the *mukaddam*, took advantage of the confusion to appropriate the lands under his charge. The allegation that they had held them rent-free was probably in most cases too true. Documents, if called for, were easily forged in those days, and the burden of proof that they were non-valid was thrown upon the Collector. By the year 1808, more than a hundred thousand such documents, affecting at least one-

eighteenth of the land in the Province, had been filed in the Collector's office.

'As regards the rights of *mukaddams*, those whose office was hereditary, and who had previously paid their revenue direct to Government independent of the *zamíndár*, were to be allowed to engage for the villages of which they were in possession. If they had paid any *rasum* or fee to the *zamíndár*, the payment to him was to be discontinued and made to Government, which would itself make it over to the *zamíndár*. In all cases in which *zamíndárs*, *tálukdárs*, *mazkurí-mukaddams*, and *sarbaráhkárs* refused to enter into engagements for their lands, the first preference was to be given to the *mukaddams* or collectors. They were not, however, to be allowed to engage for lands not included in their *mukaddamís*. Here we have a distinct legal recognition of the right of a hereditary *mukaddam* to engage for the revenue of his tenure, and become a *zamíndár* in the present sense of the word; that is, to change his office of collecting the revenue on behalf of the Government, to that of a direct proprietary right in the soil. The practice was a common one during the last few years of the Marhattá occupation. Every proprietor admitted to Settlement was to be called upon to give full security for the payment of the revenue assessed on his estate. He was also to bind himself to give *pattás* or leases to the *rayats*, and to consolidate with the land rent all *abwábs* or cesses. This provision, however, was a dead letter. The *rayats* came into contact only with the *tahsíldárs* and other native officers of Government, who, being landholders themselves, were not likely either to encourage complaints, or to bring them, if made, before the Collector. The *sayer* duties, and all other collections not connected with the land revenue, were to be made over exclusively to Government. In cases of disputed right, the party in possession was to be continued in it, pending the result of a regular suit, which was to be brought within four years; failing this, the party in possession was to be finally confirmed at the end of the eleventh year.'

The first Settlement was concluded early in 1805, at an assessment for the whole Province of £131,482. At this time, and up to 1828, Orissa was not split up into Districts, and was under one Collector. Of the assessment in 1805, however, almost exactly one-half, or £66,888, was derived from the tract which constitutes the present District of Cuttack. In 1806 the Settlement was continued for three years, at an assessment for the whole Province of

£143,535, or an increase of £12,053 over that of the previous year. The portion belonging to what constitutes the present Cuttack District amounted to £71,087. In 1808-9, another Settlement was made for one year, afterwards continued for a further period of three years. Other Settlements occurred in 1812-13, for one year; in 1813-14, for two years; in 1815-16, for one year; in 1816-17, for three years; in 1819-20, for three years; and in 1822-23 for five years. In 1836-37, after a detailed investigation into the circumstances of the Province, a Settlement was made for thirty years. This Settlement expired in the famine year of 1866-67. But the Government felt that at such a time it would be inhumanity to propose raising the land tax of the Province, and the Settlement was renewed without enhancement for another thirty years, or till 1896-97. I am unable to give the amount of assessment under the Settlement of 1837; but that realized under its continuation, which is practically the same, amounted in 1875 to £71,926 for Cuttack District, exclusive of the permanently settled *kilá* estates on the hilly western frontier, and along the coast.

Land Tenures.—The following account of the numerous varieties of land tenure prevalent in Cuttack District is condensed from a special Report on the subject by Bábu Rangalál Banarjí, Deputy-Collector, dated 23d August 1875. I have not strictly followed the principle of classification adopted by the Deputy-Collector; but so far as possible I have preserved the language of the historical portion of his report. The land tenures met with in Cuttack District may be divided into the following eight classes, viz.:—(1) Tributary estates, or *kilájáts*, paying a light *peshkash* or permanent tribute; (2) *zamíndárís*, or estates paying revenue direct to Government; (3) estates paying revenue through the *zamíndárs*; (4) resumed revenue-free tenures; (5) quit-rent tenures; (6) revenue-free tenures; (7) service tenures; and (8) cultivating tenures.

(1) The Tributary Estates or Kilajats.—There are at present eleven of these estates in Cuttack District; six being situated on the sea coast, namely, Kaniká, Aul, Kujang, Chhedrá, Harishpur, and Bishnupur; and five in the hilly western tract bordering on the semi-independent Tributary States, namely, Sukindá, Madhupur, Darpan, Kalkalá, and Dompárá. The area occupied by these estates is 1,118,325 acres, or 1739·57 square miles; and the total amount of revenue paid by them, £8013, 7s. 0d. Of the eleven estates, only the following eight, namely, Darpan, Sukindá,

Madhupur, Aul, Kujang, Harishpur, Bishnupur, and Kaniká, were recognised as having a right to hold their estates subject to the payment of a permanent sum to Government, by sections 33 and 34 of Regulation xii. of 1805, which laid down rules for the Settlement of the Province. While recognising this right, however, the Regulation marked a considerable difference between the position of the estates of Darpan, Sukindá, and Madhupur, and that of the others. The chiefs of both sets of estates were styled *zamíndárs* in the Regulation above quoted; but the Government revenue in the case of the first set is styled rent, or *jamá*, and in the latter, quit-rent, or *peshkash*. Again, ordinary *sanads* or deeds of appointment were given to the *zamíndárs* of Darpan, Sukindá, and Madhupur; while in the case of the other chiefs named, regular engagements or *ikrárnámás* were taken and confirmed by the Governor-General in Council. Engagements were also taken from the *zamíndárs* of Darpan, Sukindá, and Madhupur, but these were simply *kabuliyats*, or documents consenting to pay the amount assessed upon the estates, and not *ikrárnámás*. The latter were documents of a political character, and contained engagements and stipulations similar to those set forth in the engagements with the Rájás of the Tributary States beyond Regulation territory; while the former were merely conditions which the sovereign power exacts from its ordinary subjects.

The following translation of the *kabuliyat* or engagement executed by, and the *sanad* granted to, the *zamíndár* of Sukindá, illustrates the nature of the relations of the Government with the proprietors of the estates in the western tract:—'I, Dhrubjí Bhubun Harichandan Mahápátra, *zamíndár* of *kilá* Sukindá, in the Province of Orissa, do execute this *kabuliyat* out of my full and free consent. That having been appointed to hold the service of *zamíndár* in the *kilá* by Government, I will collect the rents according to former rates, agreeably to the laws of the Government. That I will pay the annual revenue due to Government in the instalments specified below, without any excuse. That I will keep the *rayats* prosperous and contented, and exert myself to improve the lands, so that they will bring forth more crops than they did before. That I will not allow an inch of cultivated land to fall waste. That I will never allow the growing of inferior crops in superior lands. That I will not be prodigal in my expenses, nor allow my *rayats* to be so. That I will never grant any land in gift or *jágír* without a *sanad* of the Government. That I will keep a watchful

eye over the boundaries of my *zamíndárí*. That I will vigilantly watch that no guns or swords, or any sort of offensive weapons, are manufactured on my estate. That there will never occur any thefts or murders within the same. Should any robbery occur, I will trace out the offenders, and recover the property stolen, and send the thieves to the authorities. Accordingly, I do hereby execute this *kabuliyat*, which will serve whenever it be required hereafter. *Jamá peshkash* in perpetuity, 5500 *káháns*, to be paid in the following instalments at the rate of four *káháns* to the rupee. In Phálgun, 1000 *káháns*, in Chaitra, 1500 *káháns*, in Baisákh, 1500 *káháns*, and in Jaishtha, 1500 *káháns*.' A translation of the *sanad* granted for the above estate runs as follows:—'Be it known to the old and newly created *chaudharís*, *kánúngos*, *mukaddams*, *dálbeháras*, and *rayats* of *kilá* Sukindá, in the Province of Orissa, that whereas Dhrubjí Bhubun Harichandan is in possession of the said *kilá* heretobefore, and therefore the *zamíndárí* of the said *kilá* is granted and assigned to him by Government, you are hereby ordered to consider him as your *zamíndár*, and never to wander from his lawful and salutary commands; you are never to conceal any matter from his knowledge; you will pay the rent to the *zamíndár*, according to laws promulgated by Government, according to former rates and customs. The *zamíndár* is to pay timely, by instalments, the annual revenue of 5500 *káháns* of cowries, as fixed by Government. He is to keep the *rayats* contented, that the productive powers of the lands may increase more than what it was before, that the *zamíndár* will keep a watchful eye that no guns, swords, or offensive weapons be manufactured within the estate, and that there shall occur no robbery or murder; if such occur, he will arrest the thieves with the recovered property, and deliver all murderers to the authorities.'

The hill chiefs of Darpan, Sukindá, and Madhupur were placed on a less exalted footing than the *kiládárs* of the sea-board estates. The former were in fact adventurers from the north-west, who settled at their respective posts as *khandáits* or military holders of land, residing in fortified dwellings, and holding their lands at a quit-rent, on condition of acting as feudal yeomanry or militia, protecting the lowlands from the incursions of the barbarous mountain tribes bordering on their estates. But by Regulation xii. of 1805, and by *sanads* granted to them, they were changed into peaceful owners of the soil, and they were assessed at a fixed *jamá* in per-

petuity. The *champání* tax, levied by them for military service, was abolished, as no military service was any longer required. The status of the *kiládárs* of Aul, Kujang, Patiá, Kaniká, Harishpur, and Bishnupur was of a more independent nature. Aul is said to have been created a *kilá* by the Mughuls, and given to a powerful relative of the Rájá of Orissa, who was ancestor of the present Rájá of Aul. The ancestors of the present Rájás of Kujang and Kaniká were barons of the land, created by the Gajapati kings of Orissa; and they have been styled Rájás in the *ikrárnámás* taken from them by the Board of Commissioners at the time of the first Land Settlement. The chiefs of Harishpur and Bishnupur were not called Rájás in the engagements taken from them, though the conditions were the same as those entered in the *ikrárnámás* of Kaniká, Kujang, Aul, etc. But the status of the sea-board *kiládárs* has materially altered for the worse of late years; many of the *kilás* have been sold for debts, and passed into other hands. One of the hill estates, Darpan, has also been brought to the hammer for the default of its holder to pay the Government dues.

The three *peshkash* estates, which were not mentioned in Regulation xii. as having acquired a right to pay only a fixed quit-rent as Government revenue, are Dompárá, Kalkálá, and Chhedrá. Of the status of the Rájá of Dompárá it would be unfair to speak now, as his claim to a higher position is under the consideration of Government. The estate was not included among those specified in Regulation xii. of 1805; and its Government revenue was enhanced subsequently by the Commissioner. On a representation to the Board of Revenue, dated 7th April 1829, the Governor-General in Council sanctioned a reduction of the assessment. The old *jamá* was fixed in perpetuity, and an *ikrárnámá* taken from the Rájá. Cheddrá was likewise omitted from Regulation xii. The assessment, however, was fixed in perpetuity by the Board of Commissioners in 1803. At the time of the conquest of the Province, the estate stood in the name of Madhusudan Narendra Mahápátra, who in 1804 was succeeded by his grandson, Srinibas Narendra Márdaráj Mahápátra. The estate was sold out of the family for debts in 1836. Kalkálá, the remaining *peshkash* estate, was formerly included within Darpan; but in May 1805 its owner applied to have it separated, and this was effected in the following July. It is held on the same terms as the parent estate.

(2) ZAMINDARIS, OR ESTATES PAYING DIRECT TO GOVERNMENT.—

At the time when Orissa passed from the Marhattás, the records show that out of 1779 estates comprised within the limits of the present District of Cuttack, only 16 were ranked as *zamíndárís*, the rest being various classes of *táluks*, such as those bearing the designation of *sadr kánúngo*, *wiláyatí kánúngo*, *kánúngo*, *chaudharí*, *mazkurí*, *mukaddamí*, etc. The estates under the latter denominations have now been all converted into *zamíndárís* by the British Government, without any distinction of rights and privileges. The total revenue realized from the 1779 estates of Cuttack by the Marhattás was 2,451,228 *káháns* of *kaurís*, equal to Rs. 612,807, or £61,280, at the rate of 4 *káháns* to the rupee. At the present day, the estates paying revenue direct to Government number 3704, of whom only 27 are *zamíndárís* proper, the remainder being made up of *táluks* and other estates whose holders have been raised to the rank of *zamíndárs*. There is, however, no difference whatever between these classes of *zamíndárs*; their rights and privileges are identical, they are enumerated in the same rent-roll, and are subject to the same fiscal laws and regulations. The Government revenue has increased from £61,280 in 1803 to £71,926 in 1875, exclusive of the *peshkash* of the estates mentioned in the last section. The 27 *zamíndárís* proper comprise a total area of 173,790 acres.

Bábu Rangalál Banarjí, the Deputy-Collector, gives the following brief sketch of the history of one of the large *zamíndárís* of the District, that of Utikan, the materials being derived from the Settlement papers:—'This estate originally belonged to one Niámat Sinh, upon whom the title of Rájá was bestowed during the Mughul administration. In his time, *parganá* Sardolá was amalgamated with Utikan, and both formed one estate; 12 villages were also taken from *parganá* Tikan and added to it. After his death, his son, Rájá Bahádur Sinh, was the *zamíndár*, and he was succeeded by Bhaktiyar Sinh. After him came Barkot Sinh, and the last of the line was Sangrám Sinh. This man was ousted by the Marhattás, and the estate was settled with Rámkrishna Deo of Aul. After a few years Sangrám Sinh was reinstated for a short time, but again driven out, and the estate was made over to Balbhadra Bhanj, Rájá of Kaniká. Again there was a change, and Sangrám Sinh was recalled to the *zamíndárí*; but only to be expelled afresh in favour of the Rájá of Kaniká, who held Utikan as a *zamíndárí* when the British took the Province. The estate

is now called Utkán Ugerah, being composed of two entire *parganás* and a portion of another. On the 20th January 1804, Balbhadra Bhanj gave a fresh *kabuliyat* to the authorities, but immediately after began to oppress the *mukaddams*, *sarbaráhkárs*, and cultivators. His oppression and extortions became so intolerable, that on the complaint of the *rayats* an *ámín* was appointed to inquire into the matter, and the charges being proved, the Rájá was arrested and imprisoned in Fort Barábati. On the 16th April 1805, under the authority of the Board of Commissioners, dated the 13th of November 1804, the Collector made a Settlement with Sangrám Sinh, reinstating him in the domain of his forefathers. This was only for five years, for Balbhadra Bhanj, after his release, moved the Government for his restoration; and under orders of the Governor-General in Council, dated 12th May 1809, he was put in possession of the estate on the 30th August of that year, and Sangrám Sinh was deprived of his paternal acres for the fourth time. After the death of Balbhadra the estate was registered in the name of his eldest son, Jagannáth Bhanj, on the 12th June 1812. On the 3d January 1817 it was divided with his younger brother, Harihar Bhanj, who received 7 *ánnás* 10 *gandás* of the property; but on the next day the whole estate was sold at Calcutta by the Board of Revenue for arrears of revenue. It was purchased by one Gopináth Rái, Chaudharí of Táki, in Jessor. He was succeeded by his son, Priánáth Rái, and his nephew, Kálí Náth Rái Chaudharí, who held it at the time of the last Settlement. It is now in the hands of one of the most enlightened of Bengalí *zamíndárs*, the Honourable Bábu Digambar Mitra, and its market value has been raised to upwards of three *lákhs* of rupees (£30,000).'

The following is a brief account of each of the other classes of tenures mentioned above as now elevated to the rank of *zamíndáris*. As indicated by their name, many of these estates were originally bestowed upon various officers of the administration by the Mughul Governors; others were obtained by purchase or by foreclosure of mortgage.

Taluk Sadr Kanungo.—The *sadr kánúngo* was the chief assistant during the Muhammadan period to the *ámíl* or divisional head officer, who was individually responsible to the State for the revenue assessed on his division, and for the general conduct and supervision of revenue, civil and criminal business. This office

was in all likelihood created in India at the time of Todar Mall's survey. It was abolished in Bengal at the time of the Permanent Settlement, and also about the same time in Orissa by Rájá Rám Pandit. The holders became the possessors of extensive estates, by advancing money to defaulting *tálukdárs* on the security of their lands. A *sanad* appointing a *sadr kánúngo*, in the reign of Aurangzeb, lays down as the principal duties of the office, the promotion and extension of cultivation, the realization of the assessment, and the preparation of an account showing the amount of the *mál sayer*, and all the various taxes. In 1803 there were 5 of these estates in Cuttack District; there are now (1875) 9, comprising a total area of 20,138 acres.

TALUK WILAYATI KANUNGO AND TALUK KANUNGO.—The *wiláyatí kánúngo* was an officer created by the Muhammadan Government: he was, in fact, the assistant of the *sadr kánúngo* in each *parganá*. Under him were again sub-assistants, who were styled simply *kánúngos*; they recorded all circumstances within their sphere which concerned landed property and the realization of the revenue, keeping registers of the value, tenure, extent, and transfers of lands, assisting in the measurement and survey of estates, reporting deaths and succession of revenue-payers, and explaining, when required, local practices and public regulations. They were paid by rent-free lands and various allowances and perquisites. These officers became in time very important in the rural tracts; and the authority vested in them enabled them, like their superiors the *sadr kánúngos*, to become owners of land in the place of the *chaudharis* and other *tálukdárs* of Orissa. Their tenures were called *táluks wiláyatí kánúngo*, or simply *táluks kánúngo*, as the case might be. In many cases, to this day, several of the *zamíndárs* retain both the titles of *chaudharí* and *kánúngo*. A *sanad* of appointment of a *wiláyatí kánúngo tálukdár* sets forth the duties of this officer as follows:—'He must pay regularly the revenue of the several villages assigned to him, instalment by instalment, keep the cultivators happy and contented, so exert himself that the signs of improving cultivation may be daily more and more perceptible, take care that *ziráití* or cultivable land shall not become *oftádiáh* or waste, nor inferior products be sown in the place of the more valuable ones; and should any theft or robbery occur, he will assist in tracing out the offenders and recovering the property: he will also abstain from levying prohibited *ábwábs*.' In 1803 the number of *táluks wiláyatí kánúngo* was 44;

in 1875 they numbered 159, and comprised a total area of 110,854 acres. The *táluks kánúngo* numbered 52 in 1803, and 165 in 1875, comprising a total area of 107,827 acres.

TALUK CHAUDHARI.—The *chaudharí* seems to be a remnant of the old Hindu fiscal organization. In Orissa and Bengal he was the same as the *des-mukh* of other parts of India, coming next to the *des-ádhikari* in point of rank and position. He was an hereditary officer, exercising the chief police and revenue powers over a certain specified tract of country; and he was also responsible for the revenue. In compensation, he was allowed to hold his lands rent-free, besides receiving certain fees and allowances. The only other name by which the Orissa *chaudharís* were known was that of *khandápátís* or *khandáits*. Their status as *tálukdárs* appears to have been confirmed from the Mughul period. In a *sanad* of appointment to a *khandáití* in the time of Murshid Kulí Khán, the duties assigned to the office were,—that the holder was to attend the *faujdár* or military officer of the *thánd* with his contingent, to protect the *parganás* under his charge from theft and robbery, to keep the cultivators contented and prosperous, and to refrain from levying unauthorized *ábwábs* or cesses. The *sanad* also set forth that he was to be considered as a *zamíndár* in every respect. In 1803 the number of these estates in Cuttack was 111; by 1875 they had increased to 336, comprising a total area of 347,287 acres.

OTHER TALUKS.—These are of various denominations, and bear the following names—(1) *Chhuál Sinh*, lion's cub; (2) *Baliar Sinh*, valiant lion; (3) *Srichandan*, (mild as) white sandal-wood; (4) *Pátnáik*, chief lord; (5) *Santrá*, border chief; (6) *Harichandan*, (sweet as) yellow sandal-wood; (7) *Mahápátra*, great minister; (8) *Rái-guru*, royal preceptor; (9) *Sudhakár*, receptacle of nectar; (10) *Bhattá*, chief *pandit*; (11) *Nisankar*, fearless lord; (12) *Pahráj* (corruption of *Prabh rájá*), chief among Bráhmans; (13) *Narendra*, lord of men; (14) *Marathá*, great warrior; (15) *Madanra*, lovely as Cupid; (16) *Utsal Ránájít*, exalted conqueror; (17) *Bará Pandá*, great *pandit*; (18) *Rái*, lord; (19) *Mal-bahar*, great athlete; (20) *Báirí-ganján*, conqueror of enemies; (21) *Bhumiá*, landed proprietor; (22) *Dandrái*, club-loving lord; (23) *Dakshin Rái*, lord of the south; (24) *Beg*, a chief; (25) *Dás*, a servitor; (26) *Mahantí*, of great heart. These names are, in fact, titles given by the Gajapati kings to the landholders created by them; but in the fiscal papers

of the Marhattá period, the *táluks* themselves were named in this way, as *táluk* Pátnáik, *táluk* Srichandan, etc. The rights and privileges of the holders are the same as those of *chaudhari tálukdárs*. In 1803 there were 61 of these estates on the rent-roll of the District; by 1875 they had increased to 126, comprising a total area of 247,151 acres.

MAZKURI TALUKS.—In old revenue accounts, this term was applied to small and scattered estates or *zamíndárís*, not included in the accounts of the District in which they were situated, and of which the assessment was paid direct to the officers of Government. These scattered estates were mentioned in the Marhattá assessment papers as 'bought.' In fact, they are purchased estates like *patná táluks* and other *kharijá* estates described below. In 1803 there were 613 of these estates; by 1875 they had increased to 1487, comprising a total area of 184,251 acres.

MUKADDAMI.—In the old Hindu fiscal system, the *grám-ádhikari*, or *pradhán*, was the head-man of a village, whose duty it was to collect the Government revenue, and who hence received the title of *pradhán*, or chief. *Mukaddam* is the Arabic word used by the Muhammadans to designate the same office. The *mukaddams* of Orissa are divided into two classes. (1) The *mazkuri mukaddams*, who form a numerous class, formerly paid their revenue direct to the *ámils* of the Marhattá Government, and were recognised as proprietors and *zamíndárs* by the British Government. These *mukáddami* tenures numbered 167 in 1803; by 1875 their number had increased to 250, comprising a total of 61,646 acres. (2) The other *mukaddams*, who pay their revenue through the *zamíndárs*, and are, therefore, merely intermediate tenure holders, will be alluded to in a subsequent paragraph.

DOGRA ESTATES.—The *dográs* were in olden times a sort of feudal militia; the word simply means a 'stick-holder.' They were remunerated by rent-free *jágírs*, which were resumed and assessed by the Marhattás. The proprietors pay their revenue direct to Government; and as such, they have been included in the general rent-roll of the Collector, and no distinction exists between them and the other *zamíndárs* of Cuttack. At the conquest, the name of one *dográ* only was recorded, the others retaining possession of their land, and paying through him. This was an arrangement made by themselves, and not directed by any authority; but the Civil Court has recognised them as *shikmí tálukdárs*, and not in

joint sharers. In 1803 the number of *dográ* estates was 26; in 1875 they numbered 65, comprising a total area of 8339 acres.

PATNA AND KHARIJA ESTATES.—The possessors of these lands are certainly proprietors of the soil, having bought the ground. The land in general was purchased free of rent; but in some instances it was stipulated that the purchaser was to pay a light fixed assessment. These purchasers belonged to all classes—Muhammadans, Bengálís, Marhattás, cultivating Bráhmans, etc. The purchases in general were originally made for building, or to establish a plantation or a village of the sort called *patná*, to which further portions were afterwards added for purposes of cultivation, until the acquisition swelled into estates of vast extent. The ground sold invariably professed to be *bunjár khárij jamá* or old-standing waste, covered with scrub jungle, unoccupied and unassessed; and it ought always to have been soil of a very inferior description. Sometimes, perhaps, it was so; but great tricks were often played, and the most unauthorized and irregular alienations took place, by the buyers, in connivance with the sellers, obtaining possession of good land liable to, or previously paying, the full assessment. Hence these possessions were often of great value, and occasioned the frequent interference and scrutiny of the provincial officers, or of the *názim*, when the abuse had arisen to a great height. Many of the *patnás* were formed by *sardárs* of the Mughul and Marhattá administration, which in course of time escheated to Government. *Patná* estates numbered 114 in 1803, and 126 in 1875, comprising 14,460 acres; the *khárijá* estates, which numbered 570 in 1803, had increased to 954 in 1875, the total area being 45,574 acres.

(3) INTERMEDIATE ESTATES PAYING REVENUE THROUGH THE ZAMINDARS.—These consist of the following six classes:—(*a*) *Mukaddamí*, (*b*) *sarbaráhkárí*, (*c*) *shikmí*, (*d*) *khárijá*, (*e*) *pradháni*, and (*f*) *pursethí*.

MUKADDAMIS.—The *mukaddams* who pay revenue through the *zamíndár*, as distinct from those who hold their lands direct from Government, are the descendants of three classes of village proprietors in Cuttack, viz. the *maurúsí*, the *khárijá*, and the *zatí mukaddams*. The number of these estates in Cuttack District is 545, comprising a total area of 94,197 acres; the amount of revenue assessed is £6169, 9s. 0d., which is paid through the *zamíndárs*, and included in the general land revenue of the District. In

reference to the change of status of the *mukaddams* since the country passed under British rule, the Deputy-Collector remarks as follows:—'They had formerly powers for the apprehension of offenders, the settlement of the village lands and their rates, and the management of the village expenses. All questions involving the interests of the village community were ordinarily submitted to them, and if not settled by them, to the heads of families, or to a *panchâyat*. But the power and importance of *mukaddams* have considerably decreased under the present rule. They are no longer considered by the people as the well-wishing heads of the village, but as merely a duplicate set of oppressive *zamíndárs*.'

SARBARAHKARI.—This is a tenure of comparatively recent growth. The word means simply a manager. In Orissa, the title was given to the village accountant, in cases where he was the general director and manager of the revenue affairs, being paid by a percentage on the collections of his village. Since the British acquisition of the Province, the status of these officers has rapidly advanced, and they are now recognised as subordinate tenure-holders. They consist of two classes, hereditary and non-hereditary *sarbaráhkárs*; the former being those who have been uninterruptedly in possession, from a period antecedent to the conquest of Orissa by the English. The status of the *sarbaráhkárs* was definitely settled by a decision of the Supreme Court in 1859. That decision plainly showed that the *sarbaráhkárs* were not in any way proprietors of the soil; their share in the villages was allowed only on account of collection charges, and not as *málikána*, or proprietary allowance. Neither hereditary nor non-hereditary *sarbaráhkárs* had any power of alienation or partition without the consent of the *zamíndár*; and both classes of tenures were liable to cancelment and resumption by the *zamíndár*, on falling into arrears. Notwithstanding these limitations, the Deputy-Collector states that, 'Still, in point of fact, the merest recognition of the *sarbaráhkar* as hereditary, when he proved the existence of his tenure prior to the British accession, has given him a status in the rural tracts which is equal to that of a *mukaddam*. In a *sarbaráhkári* village, the *zamíndár* is nobody; he only gets his own percentage and that of Government from the *sarbaráhkár*. He does not get anything for land newly thrown up by a river; he does not get the enhanced profits which accrue on account of the increase in the productive power of the land; he has nothing to do with the settlement of waste land; and last of all, he does not receive *mangan* and other

voluntary contributions from the cultivators; these are all enjoyed by the *sarbaráhkár* alone.'

The following are the main incidents of a *sarbaráhkárí* tenure, as laid down in the judgment of the Supreme Court above cited:—*1st*, That the *sarbaráhkárí* tenure is recognised as one of the existing under-tenures of Cuttack. *2d*, That the Collector at the time of making a Settlement must, as in the case of *mukaddams*, fix the share of the existing rental to be allowed to a *sarbaráhkár*, and the amount payable by him for the village under his management to the *zamíndár*. *3d*, That if a *sarbaráhkárí* tenure be found at the time of Settlement in the possession of several joint *sarbaráhkárs*, the Collector, with the concurrence of the *zamíndár*, may select one or more of the body to be the recorded manager of the *sarbaráhkárí*. *4th*, That *sarbaráhkárs* so selected and recorded cannot be ousted from their tenures, except for default of payment of rent, or for mismanagement, proved to the satisfaction of the Collector. *5th*, That the tenures should never be admitted at the time of Settlement as hereditary, unless they have been held as such uninterruptedly from a period antecedent to the British accession, *i.e.* antecedent to 14th October 1803, and unless the claimant be in possession of the tenure at the time, or within a year previous to the time of Settlement. *6th*, That in cases in which hereditary succession or interrupted occupation cannot be shown, but the claimant himself has been long in possession, and is in possession at the time of Settlement, the Collector may, in consideration of occupancy, according to its duration and circumstances, propose a temporary admission of the tenures for such term, and on such condition, as the case may seem to require. *7th*, That no admitted *sarbaráhkárí* tenure, hereditary or temporary, can be subdivided without the consent of the *zamíndár*.

In 1875 the District contained 306 of these *sarbaráhkárí* estates, of which 224 were held on a *maurúsí* or hereditary tenure. The total area occupied by these estates is 50,596 acres.

SHIKMI.—These estates are portions of *zamíndárís* or *dográ mahálsí*, subdivided among several sharers, who pay the land revenue through the principal *zamíndár* in whose name the estate stood at the time of the Settlement. In many cases they have tried to get their shares partitioned and their names separately registered, but in vain. The District contained 323 of these estates in 1875, comprising an area of 2969 acres.

KHARIJA JAMABANDI.—These are all of the same class as the *khárijá* estates mentioned above, but with the exception that they pay their revenue through the *zamíndárs* instead of to the Government direct. Cuttack contained 9570 of these estates in 1875, comprising a total area of 25,204 acres.

PRADHANI AND PURSETHI TENURES.—These tenures have existed from time immemorial. The *pradhání* is the tenure held by heads of villages. In Orissa, these *pradháns* were mere officers of the Rájá, depending on his will and pleasure, although for the most part succeeding hereditarily to their offices. Their business was the superintendence of the collection of revenue, and for this they received, rent free, one *bighá* of land for every twenty under their management. The *pradháns* had only the general supervision and management of the land; they never had any actual property in the soil, excepting their *vitta* or service lands, but their right of management was transferable. Besides holding the *vitta* land, the *pradhán* also received a small annual fee from the villagers, after an examination of the crops when they reached maturity. Whatever may have been the status of the *pradháns* under the old Hindu rule, they have been recognised as proprietors ever since the acquisition of the Province by the British, and have been confirmed as such by subsequent judicial decisions. The lands, however, are not held direct from Government. The *pursethis* appear to have status and rights identical with those of the *pradháns*, the word being a contraction of the Sanskrit *purá*, a town, and *shreshthi*, a chief. Perhaps the head-men of towns were styled *purá-shreshthis*, while their brethren of the villages were merely called *pradháns*. These remnants of old tenures, however, are quite insignificant in Cuttack District, the majority of them having merged into the *mukaddamí* tenure created by the Mughuls when the Province was settled by Todar Mall, Akbar's Finance Minister, in 1582. The number of *pradhánis* is only 2, comprising an area of 922 acres, situated close to the town of Cuttack, in *parganás* Bakrábád and Cuttack Havelí. Of the 14 *pursethí* tenures, comprising 1266 acres, there are 8 in Bakrábád *parganá*, and 6 in Asureswar.

(4) RESUMED REVENUE-FREE TENURES.—These consist of three classes,—resumed *lákhiráj*, resumed *jágír*, and resumed *nánkár* lands. As implied by their names, they are lands which were formerly revenue-free, but which at the time of Settlement proved to be held on non-valid or incomplete grants, and were accordingly brought on

the revenue-roll of the District, and a light assessment imposed. The different classes of *lákhiráj* and *jágír* tenures (granted for religious or charitable purposes) will be described in a subsequent section, when treating of those tenures which were confirmed as revenue-free at the time of the Settlement. The resumed *lákhiráj* estates, which have been settled at half-rates of assessment, numbered 7,520 in Cuttack District in 1875, comprising a total area of 97,884 acres. The number of the resumed *jágírs* cannot be ascertained without a detailed local inquiry, but they comprised in 1875 a total area of 14,423 acres. The *nánkár* estates comprised lands which were formerly assigned by direct grant of the ruling power to certain *zamíndárs*, *tálukdárs*, and *mukaddams*, for their own special cultivation for the support of their families. Rájá Sangrám Sinh, a former *zamíndár* of *parganá* Utkan, claimed to hold 37 *bátís* of such land under an old grant from Raghují Bhonslá, the Marhattá governor. The Deputy-Collector states that the whole of these *nánkár* lands have been resumed, and a light tax assessed on them. The number of these tenures at present existing has not been ascertained, but they comprise a total area of 46,393 acres.

(5) QUIT-RENT TENURES.—These consist of *áimá* and *tanki* estates. *Aimá* lands are those granted by the Mughul governors, subject to the payment of a small quit-rent, to learned or pious Musalmáns, or for religious and charitable uses in connection with Muhammadanism. These tenures have been confirmed by the British Government, and recognised as hereditary and transferable. In 1875 the District contained 232 of these small estates, comprising an area of 992 acres. *Tanki* land is that held in quit-rent at the rate of one rupee (*tankd*) per certain measure of land, generally per *bátí* of 20 *máns*. (An Orissa *mán* is equal to an English acre.) This tenure was one of the perquisites attached to the office of *sadr kánúngo* during the Mughul period. In 1875 there were 200 of these estates in Cuttack District, comprising a total area of 6363 acres.

(6) CULTIVATING TENURES.—The cultivators of the District are composed of two classes, namely, *thání* or resident, and *páhí* or non-resident or migratory husbandmen. The *thání* or resident cultivators hold their lands with an hereditary right of occupancy, but without the right of transfer. At the time of the Settlement in 1837, the rights of the resident cultivators were formally recognised by Government, and secured to them by palm-leaf leases (*tál-pattás*)

The strong love of home felt by all Uriyás has enabled the *zamíndárs* or superior holders to exact higher rents from the *thání* or resident, than from the *páhí* or migratory cultivators, besides a long list of impositions, contributions, and extra collections. In the earlier years immediately succeeding our conquest, one of the local officers reported that 'the only positive check to the exactions of a landholder is the apprehension of the depopulation of his estate by the flight of his tenants.' But the home tie is so strong, that nothing but direst necessity would induce an Orissa peasant to desert his ancestral lands. Although paying a higher rent, and liable to other demands, the *thání* or resident cultivator has many substantial advantages over the *páhí* or migratory husbandman. Mr. Stirling, writing on the subject in 1821, set forth these privileges as follows:—'In the first place, there is the general one of having a home of his own, where his ancestors have dwelt in all ages; of sitting under the shade of the trees which they planted, and of bestowing his labour on land which may in one sense be called his own. Rooted to the soil, he has a local habitation and a name, a character known to his neighbours, and a certain degree of credit thence resulting, which enables him to borrow from the *mahájan*, and secures him a settled market for the disposal of his produce. Then, again, he is exempt from demand of *chándniá* or house-rent, and is allowed besides a small portion of rent-free *khanábárí* land around his habitation as garden ground, where the trees which he plants are his own, though liable, probably, to be cut down or attached in payment of arrears; also a place called *talmundá*, as a nursery for the rice-seed previous to transplanting. A preference is given to him in cultivating the lands of the village *lákhirájdárs*, when they do not themselves handle the plough; and his sons and brethren, or even himself, may cultivate untenanted land as *páhí rayats* in their own or another village.' *Thání rayats*, besides holding their lands with permanent hereditary rights, also hold them free of any enhancement of rent during the currency of the Settlement. At the time of the Settlement in 1837, 37,242 leases, aggregating 163,721 acres, were granted to *thání* cultivators. Since then, some of these resident cultivators' holdings have lapsed from want of heirs or other causes, while others have been created by the landholders. The Deputy-Collector in his Land Tenure Report, dated 23d August 1875, returns the number of *thání* holdings in Cuttack District at 33,098, comprising a total area of 142,101 acres.

The *páhí* or non-resident cultivators were originally immigrants, who were induced by the landholders to settle on their estates at low rates of rent. Originally, they had, as a rule, no house or homestead in the village to which their fields were attached. At the present day, however, many of the *páhí rayats* have fixed their permanent homesteads in the villages of their adoption; and long residence has given them the status of burgesses or citizens of the village, although they pay rent for the ground upon which their houses are built, which the *thání rayats* do not. Previous to the passing of the Rent Law of Bengal (Act x. of 1859), the *páhí* husbandmen were mere tenants-at-will, except when secured in their holdings by special leases granted by the landholders, and could be ejected from their lands or have their rents raised at any time at the landholder's pleasure. Under Act x. of 1859, a large proportion of this class of cultivators have acquired rights of occupancy. The Deputy-Commissioner, in his Report of the 23d August 1875, states that the number of *páhí* cultivators' holdings cannot be ascertained without a special local inquiry, but returns the total area of such lands at 248,353 acres.

There is a third class of husbandmen, called *chándniá rayats* or homestead cultivators, who hold only homestead and garden land. Some leases of this description were granted at the time of the Settlement in 1837, giving the holders equal rights with the resident cultivators; generally speaking, however, the *chándniá* or homestead *rayats* hold their lands under the *páhí* or non-resident tenure. The number of these homestead holdings in 1875 was returned at 38,586, occupying an area of 10,319 acres.

(7) RELIGIOUS AND CHARITABLE TENURES.—The revenue-free grants of land for religious and charitable purposes, which existed prior to our acquisition of the country, are as follow:—(*a*) *Bráhmottar;* lands granted rent-free for the support of Bráhmans. No information is available as to the number of these tenures; but the area of land thus alienated in Cuttack District is returned at 46,378 acres, viz. 39,649 acres in the regularly settled part of the District, and 6729 acres in the *peshkash* estates. (*b*) *Debottar;* lands granted rent-free for the worship of the gods, or the maintenance of temples or idols; total area, 67,954 acres, of which 45,958 acres are situated in the regularly settled part of the District, and 21,996 acres in the *peshkash* estates. (*c*) *Amritá monohi;* lands given rent-free for the support of the temple of Jagannáth;—the allowance is for the purpose

of providing sweetmeats for the idol, which, after having been formally offered before him, are distributed among the worshippers; total area, 12,677 acres, of which 11,761 are situated in the regularly settled part of the District, and 916 acres in the *peshkash* estates. (*d*) *Khairát;* lands granted rent-free as an endowment for a Muhammadan charity, such as distribution of alms, etc.; total area, 22,186 acres, of which 17,359 are in the permanently settled part of the District, and 4827 in the *peshkash* estates. (*e*) *Pirottar;* assignments of rent-free lands to defray the expenses of a mosque or Muhammadan religious establishment; total area, 4847 acres, of which 3409 are situated in the permanently settled part of the District, and 1438 in the *peshkash* estates. (*f*) *Madadmash;* assignments of rent-free lands for the support of learned or religious Muhammadans, or of benevolent institutions; total area, 1149 acres, of which 1077 are situated in the permanently settled part of the District, and 72 in the *peshkash* estates. (*g*) *Maáfi kharidá;* total area, 5172 acres, of which 4272 are situated in the regularly settled part of the District, and 900 in the *peshkash* estates. (*h*) Other revenue-free religious and charitable lands; 4515 acres, of which 4506 are in the regularly settled tract, and 9 acres in the *peshkash* estates. Grand total of the area of revenue-free tenures, 164,884 acres, of which 127,995 are in the permanently settled tract, and 36,889 in the *peshkash* estates.

(8) SERVICE TENURES.—These consist of assignments of land to village servants and officers,—(*a*) *páiks* and (*b*) *khandáits*. These form the present rural constabulary of the Province, and now fill a position analogous to that of the *chaukídárs* in Bengal. The District Superintendent of Police thus describes the duties exacted from these men:—'The *páiks* and *khandáits* formed originally a sort of feudal militia, who in consideration of rendering certain military service to the ruling power, as the exigencies of the time and State demanded, lived in the enjoyment of certain lands. These lands they retain, whether intact or not I am unable to state. The peculiar service for which the grants of lands were made is, of course, no longer demanded, so that now the duties devolving upon this force are of a somewhat anomalous character. They are, undoubtedly, under the English rule, what may be termed a branch or arm of the village police, and in some instances perform duties in all respects identical with those discharged by regular *chaukídárs* or village police. In others they are more like peons than regular police, attending at

police stations for given periods, from one to seven days at a time, for the purposes of carrying official correspondence, escorting small sums of money, and accompanying officers on tour in the District. They are called upon to, and do, assist the police in preserving the peace, and bringing information of offences. Some of those who live near stations on the main lines of communication perform regular police patrol duties, in turn with constables of the regular police and road *chaukídárs*. In some few instances they are, to all intents and purposes, village *chaukídárs*, generally assisting in the watch and ward of a village, the size of which is such as to call for the services of more than one man to look after its security. I know of no distinction between the duties of *khandáits* and *páiks*. If there be any, it is a distinction merely in name, and not in the nature of the duty to be discharged. Their position with respect to the regular police is the same as that of the *chaukídár*. They are under the direct supervision and direction of the regular police, and form an auxiliary force. These *páik* or *chaukídárí* tenures in 1875 numbered 4652, comprising an area of 9122 acres. The *khandáití* tenures are returned separately as numbering 465, with an area of 1298 acres. (*c*) *Ráhbár;* road guides; their tenures number 31, comprising an area of 282 acres. (*d*) *Patwárí;* village accountants; their tenures number 100, and comprise a total area of 3564 acres. (*e*) *Bhandárí;* barber; their tenures number 2556, and comprise a total area of 1519 acres. (*f*) *Barhái;* carpenters; their tenures number 1797, and comprise a total area of 1095 acres. (*g*) *Dhobá;* washermen; their tenures number 2897, and comprise a total area of 1590 acres. (*h*) *Kámár;* blacksmiths; their tenures number 1314, and comprise a total area of 827 acres. (*i*) *Kumbhár;* potters; their tenures number 98, and comprise a total area of 131 acres. (*j*) *Nayak;* astrologers and fortune-tellers; their tenures number 66, and comprise a total area of 20 acres. (*k*) *Ghát-manjhí;* ferrymen; their tenures number 176, and comprise a total area of 252 acres. (*l*) *Mihtár;* sweepers; their tenures number 70, and comprise a total area of 59 acres. With the exception of the *páiks*, *khandáits*, *bhandáris*, and *ghát-manjhis*, none of the foregoing are, in any sense of the word, village officers, but simply servants of the *zamíndárs*.

RATES OF RENT.—At the time of the Settlement in 1836-37, the rates obtained for the different descriptions of land on some of the more important estates in the District were as follow. The figures are gleaned from the tabular statements in the Settlement Papers.

The Bengal *bighá* is not in use in Cuttack District. The standard land measure is the *mán*, equal to an English acre.—(1) In Deogáon *parganá* tobacco land yielded, in 1836-37, a rental of from Rs. 18. 12. 0 or £1, 17s. 6d. an acre for first-class fields, down to Rs. 3. 2. 0 or 6s. 3d. an acre for the eighth class; two-crop (*do-fasli*) land, growing *biáli* rice and *birhi*, is divided into no less than twelve classes, the rents from which varied from Rs. 4. 11. 0 or 9s. 4½d. for first-class, to 12½ *ánnás* or 1s. 6¾d. for twelfth-class land, per acre; land growing *biáli* and mustard varied from Rs. 6. 4. 0 or 12s. 6d. for first-class, to Rs. 1. 9. 0 or 3s. 1½d. for fifth-class land; that growing *biáli* and tobacco, divided into four classes, from Rs. 12. 8. 0 or £1, 5s. 0d. to Rs. 4. 11. 0 or 9s. 4½d. an acre; of *ek-fasli* or one-crop land, that growing *sárad* or winter rice is divided into ten classes, which paid a rent varying from Rs. 3. 14. 6 or 7s. 9¾d. to 10½ *ánnás* or 1s. 3¾d.; wheat land, one class, Rs. 1. 9. 0 or 3s. 1½d. an acre; castor-oil land, one class, Rs. 1. 9. 0 or 3s. 1½d. an acre; coriander land, two classes, Rs. 4. 15. 0 or 9s. 10½d., and Rs. 1. 9. 0 or 3s. 1½d. an acre. (2) In the village of Tulang, in Khandi *parganá*, the rates per acre for the different classes of land growing the most important crops were as follow:—*Do-fasli*, or two-crop—*Biáli* and *birhi* land, eight classes, from Rs. 7. 13. 0 or 15s. 7½d., down to Rs. 3. 2. 0 or 6s. 3d. an acre; *mánduá* and *birhi* land, nine classes, from Rs. 7. 13. 0 or 15s. 7½d. to Rs. 3. 7. 0 or 6s. 10½d.; *mánduá* and cotton, two classes, Rs. 5. 15. 0 or 11s. 10½d., and Rs. 3. 13. 0 or 7s. 7½d. *Ek-fasli*, or one-crop—*Sarad*, or winter rice land, twelve classes, from Rs. 7. 13. 0 or 15s. 7½d. to Rs. 3. 2. 0 or 6s. 3d.; *biáli*, twelve classes, from Rs. 4. 11. 0 or 9s. 4½d. to 15 *ánnás* or 1s. 10½d.; *mánduá*, nine classes, from Rs. 1. 15. 0 or 3s. 10½d. to 6 *ánnás* or 9d. an acre. (3) In the village of Muguriá in Bálubisi *parganá*, rents for the various qualities of land ranged as follows:—*Do-fasli*, or two-crop—*Mánduá* and *koláth*, twelve classes, from Rs. 6. 4. 0 or 12s. 6d. to 12½ *ánnás* or 1s. 6¾d. per acre; *biáli* and *koláth*, twelve classes, from Rs. 6. 4. 0 or 12s. 6d. to 10 *ánnás* or 1s. 3d.; *mánduá* and cotton, five classes, from Rs. 4. 11. 0 or 9s. 4½d. to Rs. 1. 9. 0 or 3s. 1½d.; *mánduá* and *birhi*, twelve classes, from Rs. 6. 4. 0 or 12s. 6d. to 10 *ánnás* or 1s. 3d. *Ek-fasli*—*Sárad*, or winter rice land, twelve classes, from Rs. 6. 4. 0 or 12s. 6d. to 12½ *ánnás* or 1s. 6¾d.; *biáli*, or autumn rice land, eight classes, from Rs. 3. 2. 0 or 6s. 3d. to 6⅓ *ánnás* or 9½d.; sugar-cane, five classes, from Rs. 9. 6. 0 or 18s. 9d. to Rs. 3. 2. 0 or 6s. 3d.; tobacco, five classes,

from Rs. 9. 6. 0 or 18s. 9d. to Rs. 4. 11. 0 or 9s. 4½d.; cotton, eight classes, from Rs. 3. 2. 0 or 6s. 3d. to 8⅛ *ánnás* or 1s. 0½d. (4) In the village of Krishnapur in Asureswar *parganá* the rates were as follow:—*Do-fasli—Biáli* and *bírhi*, twelve classes, from Rs. 7. 13. 0 or 15s. 7½d. to Rs. 2. 11. 6 or 5s. 5¼d. an acre; *biáli* and wheat, twelve classes, from Rs. 7. 13. 0 or 15s. 7½d. to Rs. 3. 2. 0 or 6s. 3d.; *biáli* and mustard, six classes, from Rs. 6. 4. 0 or 12s. 6d. to Rs. 3. 2. 0 or 6s. 3d. *Ek-fasli—Sárad*, twelve classes, from Rs. 6. 4. 0 or 12s. 6d. to Rs. 3. 2. 0 or 6s. 3d.; *biáli*, ten classes, from Rs. 6. 4. 0 or 12s. 6d. to Rs. 1. 9. 0 or 3s. 1½d.; *dáluá*, from Rs. 3. 2. 0 or 6s. 3d. to Rs. 1. 9. 0 or 3s. 1½d.; tobacco, six classes, from Rs. 7. 4. 0 or 14s. 6d. to Rs. 2. 8. 0 or 5s.; sugar-cane, six classes, from Rs. 5. 4. 0 or 10s. 6d. to Rs. 3. 2. 0 or 6s. 3d.; mustard, nine classes, from Rs. 4. 11. 0 or 9s. 4½d. to 12½ *ánnás* or 1s. 6¾d.; turmeric, four classes, from Rs. 6. 4. 0 or 12s. 6d. to Rs. 2. 8. 0 or 5s.; *bírhi*, twelve classes, from Rs. 5 or 10s. to Rs. 1. 12. 0 or 3s. 6d.; *múg*, twelve classes, from Rs. 6. 4. 0 or 12s. 6d. to 12½ *ánnás* or 1s. 6¾d.

The Inundation Committee's Report in 1866 returned the rates per acre for the very best qualities of two-crop, and of *sárad* or winter rice land, in 75 different *parganás* of Cuttack District. (1) Abartak, Rs. 7. 13. 0 or 15s. 7½d. for two-crop, and Rs. 6. 4. 0 or 12s. 6d. for winter rice land; (2) Alti, Rs. 6. 4. 0 or 12s. 6d. for each description; (3) Anábartak, Rs. 4. 11. 0 or 9s. 4½d., and Rs. 3. 12.6 or 7s. 6¾d., respectively; (4) Apilá, Rs. 4. 11. 0 or 9s. 4½d., and Rs. 4. 10. 8 or 9s. 4d.; (5) Asureswar, Rs. 12. 8. 0 or £1, 5s. 0d., and Rs. 9. 6. 0 or 18s. 9d.; (6) Atkhantá, Rs. 3. 2. 0 or 6s. 3d. for each description; (7) Bahurúpá, Rs. 2. 5. 6 or 4s. 8¼d. for each; (8) Bákrábád, Rs. 3. 2. 0 or 6s. 3d., and Rs. 2. 8. 0 or 5s.; (9) Bálubisi, Rs. 6. 4. 0 or 12s. 6d. for each; (10) Bárán, Rs. 2. 5. 6. or 4s. 8¼d., and Rs. 1. 15. 2 or 3s. 10¾d.; (11) Bárdiyálá, Rs. 3. 8. 0 or 7s., and Rs. 3. 2. 0 or 6s. 3d.; (12) Bárgáon, Rs. 4. 11. 0 or 9s. 4½d. for each; (13) Barpallá, Rs. 5. 3. 4 or 10s. 5d., and Rs. 4. 11. 0 or 9s. 4½d.; (14) Baruyá, Rs. 6. 4. 0 or 12s. 6d. for each; (15) Báutara, Rs. 4. 11. 0 or 9s. 4½d. for winter rice land; (16) Benáhár, Rs. 6. 4. 0 or 12s. 6d., and Rs. 4. 11. 0 or 9s. 4½d.; (17) Cuttack Hávelí, Rs. 3. 8. 4 or 7s. 0½d., and Rs. 4. 11. 0 or 9s. 4½d.; (18) Chaurdá Kolát, Rs. 4. 15. 2 or 9s. 10¾d., and Rs. 4. 11. 0 or 9s. 4½d.; (19) Chhedrá, Rs. 2. 8. 0 or 5s. for winter rice land; (20) Dálijorá, Rs. 6. 4. 0 or 12s. 6d., and Rs. 6. 14. 0 or 13s. 9d.; (21) Dámarpur, Rs. 4. 11. 0 or 9s. 4½d. for each; (22)

Deogáon, Rs. 4. 11. 0 or 9s. 4½d. for each; (23) Derabisi, Rs. 2. 5. 6 or 4s. 8¼d. for winter rice land; (24) Dihi Arakpur, Rs. 6. 10. 8 or 13s. 4d. for each; (25) Gandilo, Rs. 4. 11. 0 or 9s. 4½d., and Rs. 7. 13. 0 or 15s. 7½d.; (26) Hariharpur, Rs. 6 or 12s., and Rs. 7. 13. 0 or 15s. 7½d.; (27) Hátimundá, Rs. 6. 4. 0 or 12s. 6d., and Rs. 4. 11. 0 or 9s. 4½d.; (28) Jájpur, Rs. 6. 4. 0 or 12s. 6d., and Rs. 5. 10. 0 or 11s. 3d.; (29) Jayanábád, Rs. 5. 5. 0 or 10s. 7½d., and Rs. 6. 4. 0 or 12s. 6d.; (30) Jayipur, Rs. 7. 13. 0 or 15s. 7½d. for each; (31) Jhankar, Rs. 9. 6. 0 or 18s. 9d. for each; (32) Jodh, Rs. 4. 11. 0 or 9s. 4½d., and Rs. 3. 12. 4 or 7s. 6½d.; (33) Kalámátriyá, Rs. 6. 4. 0 or 12s. 6d., and Rs. 4. 1. 0 or 8s. 1½d.; (34) Kanchikhánd, Rs. 7. 13. 0 or 15s. 7½d. for each; (35) Karimúl, Rs. 7. 13. 0 or 15s. 7½d. for each; (36) Káte, Rs. 5. 3. 4 or 10s. 5d., and Rs. 4. 11. 0 or 9s. 4½d.; (37) Káyamá, Rs. 3. 2. 0 or 6s. 3d. for each; (38) Keruyálkhand, Rs. 7. 13. 0 or 15s. 7½d. for each; (39) Khandi, Rs. 7. 13. 0 or 15s. 7½d. for each; (40) Kilá Al, Rs. 2. 5. 6 or 4s. 8¼d., and Rs. 2. 1. 4 or 4s. 2d.; (41) Kodindá, Rs. 6. 4. 0 or 12s. 6d., and Rs. 7. 0. 6 or 14s. 0¾d.; (42) Kokuyákhand, Rs. 6. 4. 0 or 12s. 6d. for each; (43) Kuhundá, Rs. 5 or 10s., and Rs. 4. 11. 0 or 9s. 4½d.; (44) Kurmiyá, Rs. 6. 4. 0 or 12s. 6d., and Rs. 4. 11. 0 or 9s. 4½d.; (45) Kusmandal, Rs. 6. 4. 0 or 12s. 6d. for each; (46) Kutabsháhí, Rs. 2. 5. 6 or 4s. 8¼d., and Rs. 2. 1. 4 or 4s. 2d.; (47) Manjurí, Rs. 4. 11. 0 or 9s. 4½d. for each; (48) Mátkadábád, Rs. 3. 2. 0 or 6s. 3d., and Rs. 4. 11. 0 or 9s. 4½d., (49) Mátkadnagar, Rs. 7. 13. 0 or 15s. 7½d. for each; (50) Mutri, Rs. 2. 8. 0 or 5s. for each; (51) Mahákhand, Rs. 7. 13. 0 or 15s. 7½d., and Rs. 4. 11. 0 or 9s. 4½d.; (52) Neulbisí, Rs. 3. 2. 0 or 6s. 3d. for each; (53) Olash, Rs. 7. 13. 0 or 15s. 7½d., and Rs. 6. 4. 0 or 12s. 6d.; (54) Padampur, Rs. 4. 11. 0 or 9s. 4½d., and Rs. 6. 4. 0 or 12s. 6d.; (55) Palná, Rs. 6. 4. 0 or 12s. 6d., and Rs. 5. 3. 4 or 10s. 5d.; (56) Páendá, Rs. 6. 4. 0 or 12s. 6d. for each; (57) Pánikhand. Rs. 4. 11. 0 or 9s. 4½d. for each; (58) Patu Mahánadí, not given; (59) Sáhibnagar, Rs. 2. 5. 6 or 4s. 8¼d. for each; (60) Sáibir, Rs. 6. 4. 0 or 12s. 6d. for each; (61) Sailo, Rs. 6. 4. 0 or 12s. 6d, and Rs. 5. 0. 0 or 10s.; (62) Swaraswatí, Rs. 6. 4. 0 or 12s. 6d., and Rs. 7. 13. 0 or 15s. 7½d.; (63) Sháhábád, Rs. 4. 11. 0 or 9s. 4½d., and Rs. 7. 13. 0 or 15s. 7½d.; (64) Shergarhá, Rs. 6. 4. 0 or 12s. 6d. for each; (65) Shujábád, Rs. 6. 4. 0 or 12s. 6d., and Rs. 4. 11. 0 or 9s. 4½d.; (66) Shujánagar, Rs. 4. 11. 0 or 9s. 4½d. for each; (67) Suháng, Rs. 6. 4. 0 or 12s. 6d., and Rs. 7. 13. 0 or

15s. 7½d., (68) Suknai, Rs. 6. 4. 0 or 12s. 6d., and Rs. 7. 13. 0 or 15s. 7½d.; (69) Sultánábád, Rs. 3. 8. 2 or 7s. 0¼d., and Rs. 2. 5. 6 or 4s. 8¼d.; (70) Sungrá, Rs. 7. 13. 0 or 15s. 7½d. for each; (71) Tapankhand, Rs. 7. 13. 0 or 15s. 7½d., and Rs. 6. 4. 0 or 12s. 6d.; (72) Tisániyá, Rs. 4. 11. 0 or 9s. 4½d. for each; (73) Tikan, Rs. 6. 4. 0 or 12s. 6d., and Rs. 4. 11. 0 or 9s. 4½d.; (74) Tiran, Rs. 6. 4. 0 or 12s. 6d. for each; and (75) Utikan, Rs. 6. 4. 0 or 12s. 6d., and Rs. 4. 11. 0 or 9s. 4½d., respectively.

PRESENT RENT RATES.—The foregoing paragraph exhibits the rates of rent for the very best qualities of land in each *parganá*, as ascertained by the Inundation Committee in 1866. A subsequent special Report by the Collector to the Government of Bengal, dated the 17th December 1872, thus returns the prevailing rates for the ordinary descriptions of land growing various crops, classified according to Subdivisions and *parganás*:—

SADR OR HEADQUARTERS SUBDIVISION.—(1) *Parganás* Sungrá, Mátkadnagar, Kuhundajipur, and Dihi Arakpur: *Sárad* or winter rice, from Rs. 3. 2. 0 to Rs. 4. 11. 0, or from 6s. 3d. to 9s. 4½d. an acre; *bálí* or autumn rice and mustard, from Rs. 2. 5. 6 to Rs. 3. 2. 0, or from 4s. 8¼d. to 6s. 3d.; *bálí* rice and *kalái*, from Rs. 3. 2. 0 to Rs. 4. 11. 0, or from 6s. 3d. to 9s. 4½d.; *bálí* rice and *múg*, from Rs. 3. 2. 0 to Rs. 4. 11. 0, or from 6s. 3d. to 9s. 4½d.; *bálí* rice and *kulthí*, from Rs. 1. 9. 0 to Rs. 2. 5. 6, or from 3s. 1½d. to 4s. 8¼d.; cotton, from Rs. 2. 5. 6 to Rs. 3. 2. 0, or from 4s. 8¼d. to 6s. 3d.; vegetables, from Rs. 2. 5. 6 to Rs. 3. 2. 0, or from 4s. 8¼d. to 6s. 3d. (2) *Parganás* Kanchikhand, Keruyálkhand, Kokuyákhand, Tapankhand, Dálijorá, and Darpan: *Sárad* rice, from Rs. 3. 2. 0 to Rs. 4. 11. 0, or from 6s. 3d. to 9s. 4½d.; *bálí* rice and *kalái*, from Rs. 1. 9. 0 to Rs. 2. 5. 6, or 3s. 1½d. to 4s. 8¼d.; cotton, from Rs. 2. 5. 6 to Rs. 3. 2. 0, or 4s. 8¼d. to 6s. 3d.; (3) *Parganás* Padampur, Karimúl, Swaraswatí, Kodindá, Paendá, and Patiyá: *Sárad* rice, from Rs. 2. 5. 6 to Rs. 3. 2. 0, or 4s. 8¼d. to 6s. 3d.; *bálí* rice and mustard, Rs. 2. 5. 6 to Rs. 3. 2. 0, or 4s. 8¼d. to 6s. 3d.; *bálí* rice and *kaldi*, from Rs. 2. 5. 6 to Rs. 3. 2. 0, or 4s. 8¼d. to 6s. 3d.; *bálí* rice and *múg*, from Rs. 2. 5. 6 to Rs. 3. 2. 0, or 4s. 8¼d. to 6s. 3d.; *bálí* rice and *kulthí*, from Rs. 1. 9. 0 to Rs. 2. 5. 6, or 3s. 1½d. to 4s. 8¼d.; tobacco, from Rs. 9. 6. 0 to Rs. 12. 8. 0, or 18s. 9d. to 25s.; sugar-cane, from Rs. 9. 6. 0 to Rs. 12. 8. 0, or 18s. 9d. to 25s.; cotton, from Rs. 2. 5. 6 to Rs. 3. 2. 0, or 4s. 8¼d. to 6s. 3d.; betel, Rs. 18. 12. 0 to Rs. 25, or,

from 37s. 6d. to 50s.; vegetables, from Rs. 3. 2. 0 to Rs. 4. 11. 0, or 6s. 3d. to 9s. 4½d.

KENDRAPARA SUBDIVISION.—(1) *Pargánás* Asureswar, Ghagradamarpur, Lahákhand, Tikan, Derábisi, and Aul: *Sárad* rice, from Rs. 3. 2. 0 to Rs. 4. 11. 0, or from 6s. 3d. to 9s. 4½d.; *biáli* rice and mustard, from Rs. 4. 11. 0 to Rs. 6. 4. 0, or 9s. 4½d. to 12s. 6d.; *biáli* rice and *kalái*, from Rs. 3. 2. 0 to Rs. 4. 11. 0, or 6s. 3d. to 9s. 4½d.; *biáli* rice and *múg*, from Rs. 3. 2. 0 to Rs. 4. 11. 0, or 6s. 3d. to 9s. 4½d.; *biáli* rice and *kulthi*, from Rs. 1. 9. 0 to Rs. 2. 5. 6, or 3s. 1½d. to 4s. 8¼d.; tobacco, from Rs. 7. 13. 0 to Rs. 9. 6. 0, or 15s. 7½d. to 18s. 9d.; sugar-cane, from Rs. 4. 11. 0 to Rs. 5. 7. 6, or 9s. 4½d. to 10s. 11¼d.; cotton, from Rs. 2. 5. 6 to Rs. 3. 2. 0, or 4s. 8¼d. to 6s. 3d.; vegetables, the same. (2) *Pargánás* Utikan and Kujang: *Sárad* rice, from Rs. 2. 5. 6 to Rs. 3. 2. 0, or 4s. 8¼d. to 6s. 3d.; *biáli* rice and mustard, from Rs. 3. 2. 0 to Rs. 4. 11. 0, or 6s. 3d. to 9s. 4½d.; *biáli* rice and *kalái*, from Rs. 2. 5. 6 to Rs. 3. 2. 0, or 4s. 8¼d. to 6s. 3d.; *biáli* rice and *múg*, the same; *biáli* rice and *kulthi*, from Rs. 1. 9. 0 to Rs. 2. 5. 6, or 3s. 1½d. to 4s. 8¼d.; tobacco, from Rs. 6. 3. 0 to Rs. 9. 6. 0, or 12s. 6d. to 18s. 9d.; sugar-cane, the same; cotton, Rs. 2. 5. 6 to Rs. 3. 2. 0, or 4s. 8¼d. to 6s. 3d.; vegetables from Rs. 3. 2. 0 to Rs. 4. 11. 0, or 6s. 3d. to 9s. 4½d. (3) *Pargánás* Bálubísí, Suknái, Paená, and Abartak: *Sárad* rice, from Rs. 3. 2. 0 to Rs. 4. 11. 0, or 6s. 3d. to 9s. 4½d.; *biáli* rice and mustard, from Rs. 3. 2. 0 to Rs. 4. 11. 0, or 6s. 3d. to 9s. 4½d.; *biáli* rice and *kalái*, from Rs. 2. 5. 6 to Rs. 3. 2. 0, or 4s. 8¼d. to 6s. 3d.; *biáli* rice and *múg*, the same; *biáli* rice and *kulthi*, from Rs. 1. 9. 0 to Rs. 2. 5. 6, or 3s. 1½d. to 4s. 8¼d.; tobacco, from Rs. 9. 6. 0 to Rs. 12. 8. 0, or 18s. 9d. to 25s.; cotton, from Rs. 2. 5. 6 to Rs. 3. 2. 0, or 4s. 8¼d. to 6s. 3d.; vegetables, from Rs. 1. 9. 0 to Rs. 2. 5. 6, or 3s. 1½d. to 4s. 8¼d.

JAGAT SINHPUR SUBDIVISION.—(1) *Pargánás* Hariharpur, Gandito, Jhankar, Khandi, Tiran, and Benahar: *Sárad* rice, from Rs. 3. 2. 0 to Rs. 4. 11. 0, or 6s. 3d. to 9s. 4½d.; *biáli* rice and mustard, from Rs. 2. 5. 6 to Rs. 3. 2. 0, or from 4s. 8¼d. to 6s. 3d.; *biáli* rice and *kalái*, the same; *biáli* rice and *múg*, the same; *biáli* rice and *kulthi*, from Rs. 1. 9. 0 to Rs. 2. 5. 6, or 3s. 1½d. to 4s. 8¼d.; tobacco, from Rs. 12. 8. 0 to Rs. 18. 12. 0, or 25s. to 37s. 6d.; sugar-cane, from Rs. 6. 4. 0 to Rs. 9. 6. 0, or 12s. 6d. to 18s. 9d.; cotton, from Rs. 2. 5. 6 to Rs. 3. 2. 0, or 4s. 8¼d. to 6s. 3d.; vegetables, from Rs. 4. 11. 0 to Rs. 6. 4. 0, or 9s. 4½d.

to 12s. 6d. (2) *Parganás* Harishpur and Bishnupur: *Sárad* rice, from Rs. [illegible] o to Rs. 2. 5. 6, or 3s. 1½d. to 4s. 8¼d.; *biáli* rice and mu[illegible] om Rs. 2. 5. 6 to Rs. 3. 2. o, or 4s. 8¼d. to 6s. 3d.; *biáli* rice [illegible] *kalái*, the same; *biáli* rice and *múg*, the same; cotton, from Rs. [illegible] 9. o to Rs. 2. 5. 6, or 3s. 1½d. to 4s. 8¼d. (3) *Parganás* Káte, C[illegible]niá, Sáilo, Sáibír, and Deogáon: *Sárad* rice, from Rs. 3. 2. o to Rs. 4. 11. o, or 6s. 3d. to 9s. 4½d.; *biáli* rice and mustard, the same; *biáli* rice and *kalái*, Rs. 2. 5. 6 to Rs. 3. 2. o, or 4s. 8¼d. to 6s. 3d.; *biáli* rice and *múg*, the same; *biáli* rice and *kulthi*, Rs. 1. 9. o to Rs. 2. 5. 6, or 3s. 1½d. to 4s. 8¼d.; tobacco, from Rs. 12. 8. o to Rs. 18. 12. o, or 25s. to 37s. 6d.; sugar-cane, Rs. 6. 4. o to Rs. 9. 6. o, or 12s. 6d. to 18s. 9d.; cotton, Rs. 2. 5. 6 to Rs. 3. 2. o, or 4s. 8¼d. to 6s. 3d.; vegetables, the same.

JAJPUR SUBDIVISION.—(1) *Parganás* Shergarhá and Sukindá: *Sárad* rice, from Rs. 1. 15. 2 to Rs. 2. 11. 8, or 3s. 10¾d. to 5s. 5½d. (2) *Parganás* Olash and Madhupur: *Sárad* rice, from Rs. 3. 2. o to Rs. 4. 11. o, or 6s. 3d. to 9s. 4½d.; *biáli* rice and mustard, Rs. 4. 11. o to Rs. 6. 4. o, or 9s. 4½d. to 12s. 6d.; *biáli* rice and *kalái*, from Rs. 3. 2. o to Rs. 4. 11. o, or 6s. 3d. to 9s. 4½d.; *biáli* rice and *múg*, the same; *biáli* rice and *kulthi*, Rs. 1. 9. o to Rs. 2. 5. 6, or 3s. 1½d. to 4s. 8¼d.; tobacco, Rs. 9. 6. o to Rs. 12. 8. o, or 18s. 9d. to 25s.; sugar-cane, Rs. 6. 4. o to Rs. 9. 6. o, or 12s. 6d. to 18s. 9d.; betel, from Rs. 12. 8. o to Rs. 25, or 25s. to 50s.; vegetables, Rs. 4. 11. o to Rs. 6. 4. o, or 9s. 4½d. to 12s. 6d. (3) *Parganás* Jájpur, Jodh, Baruá, and Alti: *Sárad* rice, from Rs. 3. 2. o to Rs. 4. 11. o, or 6s. 3d. to 9s. 4½d.; *biáli* rice and mustard, the same; *biáli* rice and *kalái*, Rs. 2. 5. 6 to Rs. 3. 2. o, or 4s. 8¼d. to 6s. 3d.; *biáli* rice and *múg*, the same; *biáli* rice and *kulthi*, from Rs. 1. 9. o to Rs. 2. 5. 6, or 3s. 1½d. to 4s. 8¼d.; tobacco, from Rs. 9. 6. o to Rs. 12. 8. o, or 18s. 9d. to 25s.; sugar-cane, Rs. 6. 4. o to Rs. 9. 6. o, or 12s. 6d. to 18s. 9d.; cotton, from Rs. 1. 9. o to Rs. 2. 5. 6, or 3s 1½d. to 4s. 8¼d.; betel, from Rs. 18. 12. o to Rs. 25, or 37s. 6d. to 50s.; vegetables, from Rs. 4. 11. o to Rs. 6. 4. o, or 9s. 4½d. to 12s. 6d. (4) *Parganás* Kalámatiyá, Bárgáon, Tisániyá, and Hátimunda: *Sárad* rice, from Rs. 2. 5. 6 to Rs. 3. 2. o, or 4s. 8¼d. to 6s. 3d.; *biáli* rice and mustard, from Rs. 3. 2. o to Rs. 4. 11. o, or 6s. 3d. to 9s. 4½d.; *biáli* rice and *kalái*, Rs. 2. 5. 6 to Rs. 3. 2. o, or 4s. 8¼d. to 6s. 3d.; *biáli* rice and *múg*, the same; *biáli* rice and *kulthi*, Rs 1. 9. o to Rs. 2. 5. 6, or 3s. 1½d. to 4s. 8¼d.; tobacco, Rs. 12. 8. o to Rs. 18. 12. o, or

25s. to 37s. 6d.; sugar-cane, Rs. 6. 4. 0 to Rs. 9 0 0 or 12s. 6d. to 18s. 9d.; cotton, Rs. 1. 9. 0 to Rs. 2. 5. 6, or 3s. [illegible] 4s. 8¼d.; vegetables, from Rs. 3. 2. 0 to Rs. 4. 11. 0, or 6s. [illegible] 9s. 4½d. (5) *Parganás* Kalma, Bautárá, and Kaniká: *Sár* [illegible] ce, from Rs. 1. 9. 0 to Rs. 2. 5. 6, or 3s. 1½d. to 4s. 8¼d. (6) *Parg.* [illegible] s Katiyá, Dalgrám, Ahiyas, and Baran: *Sárad* rice, from Rs. 1. 9. [illegible] to Rs. 2. 5. 6, or 3s. 1½d. to 4s. 8¼d.; *biálí* rice and mustard, Rs. 2. 5. 6 to Rs. 3. 2. 0, or 4s. 8¼d. to 6s. 3d.; *biálí* rice and *kalái*, the same; *biálí* rice and *múg*, the same; *biálí* rice and *kulthí*, from Rs. 1. 9. 0 to Rs. 2. 5. 6, or 3s. 1½d. to 4s. 8¼d.; tobacco, from Rs. 6. 4. 0 to Rs. 9. 6. 0 or 12s. 6d. to 18s. 9d.; sugar-cane, from Rs. 4. 11. 0 to Rs. 6. 4. 0, or 9s. 4½d. to 12s. 6d.; cotton, from Rs. 1. 0. 8 to Rs. 1. 9. 0, or 2s. 1d. to 3s. 1½d.; vegetables, from Rs. 2. 5. 6 to Rs. 3. 2. 0, or 4s. 8¼d. to 6s. 3d.

MANURES are hardly used at all in the inundated parts of the delta, and in the higher tracts for a few crops only. Rice fields get but a thin top-dressing of cow-dung and decomposed rubbish; but for sugar-cane, two *maunds* or one and a half hundredweights of oil-cake, valued at Rs. 2. 8. 0 or 5s., is considered indispensable.

IRRIGATION has hitherto been conducted almost wholly by means of natural watercourses; but the irrigation distributaries now in course of construction, connected with the Orissa canal system, will provide for the artificial irrigation of a large tract of country. Previously the people have scarcely ever cultivated crops requiring irrigation, except in localities where natural facilities existed for it. Tank water is very seldom used, nor are wells sunk for this purpose. Cotton, *dáluá* rice, *búť*, *pán*, and sugar-cane must have a sure supply of water, but a very little suffices for tobacco, wheat, or barley. The Collector estimates the cost per acre of irrigating the different varieties of crops as follows:—Sugar-cane, Rs. 30 or £3; cotton, Rs. 12 or £1, 4s. 0d.; *dálua* rice, Rs. 2 or 4s.; *pán*, Rs. 100 or £10; tobacco, Rs. 4 or 8s.; *búť*, Rs. 3 or 6s.; and wheat, Rs. 3 or 6s.

ROTATION OF CROPS.—Turmeric, cotton, and sugar-cane are not cultivated on the same land in successive years, *biálí* rice being grown instead every alternate year. Although the utility of allowing land to lie fallow is fully understood by the cultivators, the constant demand for land prevents the practice from being often adopted.

NATURAL CALAMITIES.—BLIGHTS are of rare occurrence, and

hitherto, when they have made their appearance, they have only affected particular localities. No case is recorded of a whole crop being destroyed by blight.

FLOODS and DROUGHTS are the real calamities of Cuttack, as of all the other Districts of Orissa. The former arise from sudden freshets of the rivers before they enter the District, and not from excessive rainfall within it. Since 1830, the floods have been of so serious a character as to cause a general destruction of the crop in 1831-32, 1834-35, 1848-49, 1851-52, 1856-57, 1857-58, 1862-63, and 1866-67, or eight years in forty-six. The Collector states that the existing embankments can protect the District from ordinary floods, but not when the rivers rise unusually high, or when the embankments are breached. He adds that further protection is much needed by means of new embankments, and the strengthening of the present ones, although this want has been partially met by the canal embankments following the routes of the rivers.

DROUGHTS in Cuttack are occasioned by the absence of local rainfall, and not from the failure of the rivers. On five different occasions since 1830, viz. in 1833-34, 1836-37, 1839-40, 1840-41, and 1865-66, drought has occurred on a sufficiently large scale to endanger the safety of the people. In seasons of drought the husbandmen dam up the rivers, and avail themselves of the water thus secured, as well as of the water of tanks, marshes, etc., wherever these exist. In 1865-66 the country was drained in this manner to such an extent as to affect the supply of bathing and drinking water. A system of irrigation canals, like that in course of construction, will go far to mitigate the effects of these calamities. A description of these works will be found in a previous section of this Statistical Account (*vide* pp. 37-51).

It sometimes happens that the District is visited with the double calamity of flood and drought in the same year, the former occurring in the early part, and the latter towards the close of the season. Drought, however, is more ruinous than flood. Great distress is caused in years of inundation, but long-protracted drought has always been followed by famine.

COMPENSATING INFLUENCES.—As the District is throughout of a deltaic character, and of a very equable level, no compensating influence exists by which in years of flood the crops of the higher lands might make up for the loss of those in the low-lying tracts. Nor, conversely, does the crop of the low lands in years of drought

compensate for the loss of that in the higher levels. Both tracts suffer in either case, although in different degrees.

FAMINE WARNINGS.—The Collector considers that prices reach famine rates when only 10½ *sers* of common husked rice can be got for a rupee, equal to a price of 10s. 8d. a hundredweight; and that relief operations should commence when prices have reached this rate. In average seasons, such rice, the universal food of the people, seldom rises above 26 *sers* per rupee, or 4s. 4d. a hundredweight. If the price of rice in January should reach 20 *sers* for the rupee, or 5s. 7d. a hundredweight, a very severe scarcity, if not actual famine, is to be feared; the ordinary rate at that time is seldom more than 34 or 33 *sers* per rupee, or 3s. 4d. or 3s. 5d. a hundredweight. The Collector would accept such a rise of price as a distinct warning of famine, unless it were susceptible of explanation from local or temporary causes. The District depends almost entirely upon the *sárad* or winter rice crop, the acreage under the *biálí* or autumn rice being only one-fourth of that under *sárad*. In the event, therefore, of a general failure of the December harvest, the following one in August and September would not make up for the deficiency. In 1866 the price of common rice rose from 13 *sers* per rupee, or 8s. 7d. a hundredweight, in January, to 4 *sers* for the rupee, or 28s. a hundredweight, in June.

FAMINE PREVENTIVE WORKS.—Since the famine of 1866, much has been done to prevent the recurrence of a similar calamity. Harbours, canals, and regular steam communication with Calcutta have broken in upon the isolation of Orissa. These and the irrigation works have been described in foregoing sections of this Account (pp. 25-51). The Collector reported in 1870 that even what had been then effected would avert the extremity of famine throughout most of the District, by importations *via* False Point and the Dhámrá river. He believes that, upon the completion of the measures now in progress, the recurrence of a famine such as that of 1866 will be impossible. The most inaccessible portion of the District at present is the Jájpur Subdivision, and it would be very difficult in the dry season to throw large supplies of grain into it from the sea coast. In the absence of a canal, the Collector considers it most important that the northern part of this Subdivision should be connected with tidal waters by a road.

THE GREAT FAMINE OF 1866.—The following brief history of the great famine which desolated Orissa in 1865-66 is compiled from the

official 'Report of the Commissioners appointed to inquire into the Famine in Bengal and Orissa in 1866' (2 vols. Calcutta 1867):—The rice crop in the year immediately preceding the total failure of the winter crop of 1865 appears to have been a fairly good one in Cuttack, although in Purí it was considerably below the average. Even so late as August 1865, prices continued easy in Cuttack; and in that month large purchases were made by a French mercantile house at from 30 to 35 *sers* per rupee, or from 3s. 9d. to 3s. 2d. a hundredweight. The rainfall of 1865 was below the average, but the prospects of the crop seem to have been, on the whole, good up to September. The monthly rainfall during 1865 was as follows:—January, 1·1 inch; February, 2·3; March, 3·6; April, 0·7; May, 7·4; June, 8·1; July, 12·2; August, 7·7; September, 7·5; October, *nil*; November, *nil*; December, 0·8 inch: total, 51·4 inches. The latest fall of rain at Cuttack in September was on the 18th, when 0·77 inch fell. The last previous heavy fall, 2·09 inches, took place on the 9th.

Up to October 1865, rice continued to be tolerably cheap in Cuttack, and the crops were generally promising. In Purí, on the other hand, with a less rainfall than Cuttack, and with a previous indifferent harvest, matters were very gloomy; prices were about 2½ times their average rates, not far short of what the poor would consider famine rates. Up to the middle of October, people still hoped that a timely fall of rain might yet save the crop. The Famine Commissioners state:—'It was the peculiarity of this occasion, that a very few days made all the difference between good crops and the most extreme failure. When the middle of October passed without sign of rain, the alarm became serious, and when the 20th was passed, the whole country was in a panic. The rice trade was stopped; the country ceased to supply the towns; at both Cuttack and Purí the *bázárs* were closed, and everywhere the alarm and inconvenience may be said to have been extreme. Throughout this famine, from the very first, it was symptomatic of its character, as rather due to scarcity of grain than scarcity of money, that each fresh accession of alarm constantly took the shape of stopping sales at the regular marts altogether, rather than of mere sudden enhancements of price. The facts seem to be that the dealers, timid and liable to panic, felt themselves very much bound by custom; and at that season of the year a large portion of their transactions were really sales on credit or advances to be repaid at customary rates, exorbitant enough in appearance, but

really hardly remunerative under the special circumstances. In the *bázárs*, some dealers had really no grain; others were unwilling to sell on the old terms, and were afraid to raise the terms too suddenly; and the remainder felt themselves unable to meet the demands which would have been thrown on them if they had kept their shops open when those of others were closed. Hence the dealers followed one another;—general closing movements took place, which were only got over when the supply had a little accumulated, and the alarmed public were glad to accept very enhanced rates. These movements were too general, and the classes of traders had too little bond of union over so large a tract of country, to admit of the explanation of mere wicked combination, even if the subsequent result had not been conclusive on the subject.'

As early as the 21st October, so serious a stoppage of sales had taken place, that the Commissioner telegraphed to Government. The shops, however, re-opened next day. The Commissioner attributed the difficulty to combinations among the dealers, and was directed not to interfere with the natural course of trade. The closing movement was shortly repeated; and the Commissioner received letters from the officer commanding the troops and the heads of various departments, complaining of the difficulty experienced by the soldiers and public servants in obtaining food. On the 6th November the Commissioner again reported to Government and to the Board of Revenue, that the price of common rice in Cuttack was 8 *sers* (local *sers* of 105 *tolás*) per rupee.

On the 11th November the Collector of Cuttack asked the orders of the Board of Revenue, whether regular inquiries into losses by drought were to be instituted throughout the District during the cold season. There was no doubt, he said, that a large portion of the crop would come to nothing, and petitions for inquiry and remissions of revenue were pouring in. The Commissioner opposed this proposal, except in the few cases in which *rayats* held their lands direct from Government without the intervention of a middleman of any kind. As regards *zamindárs*, *mukaddams*, and *sarbaráhkárs*, the Commissioner was averse to granting remissions, upon the ground that although the produce from these estates was less in quantity, the profits would be more than proportionately increased, and, were the Government revenue remitted, the *zamindár*, and not the cultivator, would benefit. The

Board approved of the Commissioner's view, that it was not necessary to make any general inquiry into losses from drought. The inquiry should be confined to losses in Government estates, and in villages not leased to any middlemen. They added that only losses arising from drought should be taken into consideration, not those from inundation.

In the meantime, however, the Board of Revenue had taken steps to be kept regularly advised as to the state of the country, and on the 10th of October a circular was issued to the District Officers, stating that, 'Owing to the scanty rainfall this year and to the unusually early cessation of the rains, there is reason to fear a somewhat extensive failure of the rice crops, and considerable difficulty in the way of sowing the cold-weather crops over a large part of Bengal.' And 'to enable the Board of Revenue to publish reliable statistics of actual prices in various parts of the country, with a view to promoting the natural flow of supplies to the Districts most in need, each District Officer is directed to forward a weekly report of the prices of food-grains prevailing in the markets of his District.'

The Government of Bengal, on the 31st October, forwarded to the Board of Revenue copies of two letters, dated the 22d and 27th October, from the Commissioner, reporting on the state of the District. The Board was requested 'to report especially on the present state of the crops and markets and the prospects of the country throughout the lower Provinces;' and to suggest any measures by which it may appear to them that the Government can aid with advantage, with a view to mitigate the effects of the present scarcity. The letter continued: 'The Lieutenant-Governor is aware, from unofficial communications, that the attention of the Board has been for some time directed to the subject, and that they are in possession of regular and late information from all the Divisions. The time has now come when it is necessary that this information should be made the basis of a comprehensive consideration of the question, and of a general Report upon which it can be safely determined whether any, and what, measures of relief are called for, and are practicable.'

Accordingly, on the 25th November, the Board reported generally on the threatened scarcity throughout Bengal. They stated that the worst Districts were undoubtedly the Cuttack Division (especially Puri) and Midnapur; and the Behar Districts of Gayá, Sháhábád, and Champáran. Prices throughout the country were

stated to be almost double the ordinary rates; and it was added that, 'it may be assumed from the high prices which have ruled of late years, that the stock of grain held in the country is not very large. The bulk of the population being agriculturists, will obtain such high prices for their short produce, that, as a rule, they will not, it is expected, suffer very materially. Still, there are undoubtedly multitudes who will not be in a position to profit by that compensation; and for them, *suffering*, though the Board humbly trust not generally *famine*, is in store this year.'

The remedial measures relied on by the Board are thus stated in their letter:—'To mitigate this evil, the Board of Revenue have already arranged for the early and regular publication of the retail prices current in each District. This will ensure such remedy being applied to the case of each place as the ordinary laws of political economy can supply. In a case of wide-spread scarcity, such as the present, those laws alone can supply any real relief; and all that the Government can do is to encourage and facilitate their operation. There can be no doubt that it is altogether beyond the power of Government to mend matters, by any extraordinary operation in contravention of those laws. Even if it be true, as has been often asserted (though the Board are by no means prepared to admit that it is certainly the fact), that the operations of these natural laws is in this country slow and uncertain, it follows only that it is the more clearly the duty of Government to do nothing that can clog or impede their working; and that it must direct its efforts to the removal of obstacles, and the promotion of confidence among grain dealers. All that the Government can really do—certainly all that it is necessary for it to do at present—is to encourage and assist in the employment of the labouring classes, especially in those Districts where the distress is greatest. The wants of the Orissa Districts will probably be met by the operations of the Irrigation Company, who will no doubt gladly take the opportunity of a favourable state of the labour market, to prosecute their operations with more than ordinary energy. The Board are glad to learn that they have been already able to supply some water for the present need, from the Kendrá-párá Canal.' After recommending the Government to act in a liberal public spirit towards the cultivators and under-tenants, in estates of which Government was the actual proprietor, and to thus set an example to all the great landholders of the country, the Board concluded their Report as follows:—'At present the Board

do not think any further measures necessary; and if their hopes are realized, nothing more will be called for. It is of the utmost consequence to wean the people of the country from the habit of relying upon Government, in circumstances in which no one but themselves can really materially help. In this view, it is important that the Government should leave no expectation outstanding that it will be prepared to make an attempt at general assistance, which, in the present case, it could certainly not render to any good purpose. Even where famine actually supervenes, the chief, if not the only reliance, must be upon the efforts of local private liberality.'

The Government of Bengal on the 11th December entirely approved of what the Board had done, and concurred generally in the opinions expressed in their letter. The provision of public works would be considered in that department. Permission was given to expend money on estates belonging to, or in charge of, Government, for relief of the helpless poor, and in giving employment to those willing and able to work, but otherwise unable to obtain employment. Every endeavour was to be made to induce the landholders to do the same, and Relief Committees were recommended in Districts where distress prevailed.

The establishment of Relief Committees was suggested by the Commissioner of Orissa on the 3d December; and on the 29th December the Collector of Cuttack reported that a public meeting on the subject had been held on the previous day, which, he said, 'was not nearly so fully attended by the *zamíndárs* as I should have wished, but some of the wealthiest of them were present, and others were represented by their *mukhtárs*.' The Collector thus concludes his Report:—'I have now travelled over a considerable portion of the District, and am not of opinion that just immediately any great amount of distress prevails in the District; but I fear that the spring of the coming year will find things changed for the worse, and that the poor non-agricultural class, composed of artisans, etc., will feel the scarcity very much. It is well to be prepared, therefore, and to have matters put in train, that when the season of distress comes, timely aid may be at hand.'

Matters, however, soon became worse than had been apprehended in any quarter. Prices steadily increased week by week, and it became apparent that absolute famine must ensue. The irrigation works, however, by providing employment for thousands of labourers, who were paid partly in money and partly in rice,

rendered the distress later in Cuttack than in the neighbouring Districts. But even in Cuttack, the official price current of the 12th February returned the price of rice at from 9 to 7 standard *sers* per rupee, equal to from 12s. 5d. to 16s. a hundredweight,—a decided famine price, and one which would distinctly point to severe famine as the season advanced. On the 8th April, the Commissioner, in a semi-official letter to the Lieutenant-Governor, stated as follows:—'Famine matters are *in statu quo;* rice very dear, and a wonderful disposition on the part of the dealers to hold back their stores of grain, which they sell by driblets, and in quantity insufficient to supply the demand. I hear everywhere that there is a large store still in hand, and it must be forthcoming ere long. . . . Meanwhile, rice is sold in the shops, and there has been no recurrence of the total closing movement.'

The following paragraphs are quoted *verbatim* from the Famine Commissioners' Report (vol. i. pp. 82, 83):—'Looking to the evidence of the officers of the Irrigation Company and others, we can have no doubt that in April, Cuttack District began to suffer from actual famine and starvation. The pressure was as yet less in the town than elsewhere; but prices reached from 6½ to 7½ *sers* per rupee, at which rate the people could not long survive, and starving objects began to appear. Several private charities were open; there was an old-established public charity; but it was not till the end of April that the Relief Committee commenced regular operations. The distress was aggravated by the failure of the Irrigation Company's rice, which came to an end at this time; their funds were at the time scant; they did not import more rice till June; and meantime, food becoming scarcer and scarcer, the relief afforded by their works was greatly diminished. It is quite clear that Colonel Rundall and Mr. Boothby (the two principal officers of the Irrigation Company) entertained strong opinions of the severity of the distress and the scarcity of the rice; and it is much to be regretted that the Commissioner and Collector did not better weigh their opinions against those of the townspeople. The agents of the French house, too—Messrs. Fressanges and De la Gatinais, persons the best qualified to judge—seem to have been very well aware that there was no grain in the country.

'The statements made to us show that there was great starvation and suffering, and considerable mortality, in Cuttack District in May. But still in the town the mortality was not excessive. There

were not the famine scenes described at Balasor; and through the greater part of the month, a District officer who did not look abroad or beyond seems not to have been very seriously alarmed. Prices were still rising, and in the middle of the month ranged from 6 to 5½ standard *sers* per rupee; but in answer to an inquiry from the Board of Revenue, the Collector wrote as follows on the 16th May: —"If we can get another Rs. 1000, besides the current subscriptions, I think we shall be able to continue feeding the poor for the next three or four months; but it is very difficult to make calculations, it is so contingent on weather and imports from Sambalpur, etc. There is sufficient grain concealed or stored for this season, I hope; but if a bad harvest follows, the results will be serious."

'But the crisis had now come. Prices went up to 5 and 4 *sers* in the latter part of the month, or to about seven times the average price of food. They rose still higher than this, and did not materially fall during the following three months. From the middle of June to the middle of July, the price (when rice could be bought at all in the town) was from 4½ to 3½ standard *sers* per rupee (from 32s. to 24s. 11½d. a cwt.), or say eight times the average price; and in most places rice was not to be obtained at all. In fact, by the end of May, Cuttack District was discovered to be in a state of terrible famine. The popular urban confidence in stocks yet remaining in hand only ended in more sudden and complete exhaustion and ruin; and in respect of high prices, Cuttack suffered more than any other District station. Rice was dearer for a short time at Balasor, but the most extreme pressure of prices lasted for a longer period at Cuttack than at either Balasor or Puri. On the 27th May, the Commissioner returning (from an official tour in the Tributary States) found the troops and Government establishments on the point of starvation; and on the 28th he sent the telegram which led to importations. On the 29th, the Relief Committee also telegraphed to Government, urgently praying for rice.

'Up to this time, there were no Government relief works in Cuttack District; but the works of the Irrigation Company afforded employment to vastly greater numbers than did the Government works in Puri. We cannot speak too highly of the humane endeavours of the officers of this Company to render their works beneficial to the destitute. In January, when rice was procurable, the numbers were at their highest; and from that month till June, employment being freely offered, and more and more needed, the

decrease in numbers was solely due to the scarcity of rice. In the rainy months from July to August, the work was for the most part stopped by the season. The following is an approximate statement of the average number of persons employed in Cuttack District by the Irrigation Company in each month from January to June 1866:—January, average number employed daily, 14,666; February, 10,763; March, 7808; April, 9146; May, 8120; June 5238.'

On the 16th May the Governor-General telegraphed for information as to what was being done respecting the Orissa Famine, and expressed his willingness to make over, if necessary, any balance of the North-Western Famine Fund that might remain in hand. The sum of two *lákhs* of rupees, or £20,000, was thereupon placed at the disposal of the Government of Bengal from the surplus of the Fund, from which the sum of £1000 was immediately assigned to each of the three Districts of Orissa.

On the 27th May the Commissioner reported fully to the Board on the state of the Province, and on the following day to Government also. He was still of opinion that rice was in the country, but as the people did not understand free trade, they would not sell it; the laws of supply and demand did not avail; and as the troops and public establishments must live, he recommended importations for their use. On the 28th May the Commissioner telegraphed to Government as follows:—'Rice with utmost difficulty procurable in insufficient quantity at 4½ Cuttack *sers* (of 105 *tolás*) per rupee. *Bázárs* again partially closed. Only one day's rations in store for troops, who are reported discontented. Commissariat have refused assistance; crime increasing daily. Public works and relief works stopped for want of food. I recommend immediate importation of rice for use of troops, for jails, and to feed labourers on relief works, and to supply food to starving through Relief Committees. Rice can be landed at Balasor river, False Point, or mouth of Dhámrá river for Cuttack. I will arrange to do so. *Mahájans* (merchants) would supply on their own account, if Government gave a tug steamer to tow ships down the coast; no rain, and the early-sown rice crop in danger.' This telegram was followed up by one from the Cuttack Local Relief Committee to Government on the 29th:—'The Committee, observing that the market price of the very coarsest rice is 3½ Cuttack *sers* per rupee, and that supplies to any amount, even at that high price, are not procurable, resolved that an urgent application be made to the Government of Bengal for impor-

tation of one *lákh* of rupees' (£10,000) worth of rice direct from Calcutta to False Point by steamer.' On the same day, the Lieutenant-Governor directed the Board of Revenue to at once arrange for sending rice from Calcutta to Balasor, False Point, and Dhámrá, as proposed by the Commissioner.

On receipt of these instructions, the Board promptly despatched the steamer *Court Hey* with a cargo of 3000 bags of rice to False Point. This cargo had been purchased for Government, and was placed at the disposal of the Commissioner for sale at the cost price of Rs. 5 per *maund*, or 13s. 8d. per cwt., to the different Government departments. The Commissioner was authorized to sell any surplus, which might not be required for these Departments, at cost price to the Relief Committee, and even to the general public, provided that such sales should not interfere with the disposal of the cargo of the *Jacques Fourestier*, which was being sent down on private account. The Board had found this ship ready laden with 8600 bags of rice intended for a foreign port; and they induced the owners to divert her to False Point, by guaranteeing a minimum price of Rs. 5. 10. 0 per *maund*, or 15s. 6d. per cwt. In announcing the despatch of these cargoes, the Board promised further imports from Akyáb as soon as possible.

Great difficulty and delay was experienced in landing the rice on its arrival, although everything possible was done by the officers and gentlemen concerned to expedite the unloading. The lighthouse keeper at False Point was requested by the Collector to arrange for the unloading of the rice from the *Court Hey;* but he had only one small boat at his disposal. M. Fressanges, the agent for the owners of the *Jacques Fourestier*, who had been instructed by his principals in Calcutta to make all his establishment available for the unloading of the *Court Hey*, postponing that of the *Jacques Fourestier* till the *Court Hey* was discharged, had promised three boats, but had warned the Collector, that as the season for their use had long passed, they were all laid up and required repair, and that he could not collect crews for them in less than a week. The Irrigation Company had only one boat available, and that was thirty miles from False Point; they sent down one of their European assistants to find a crew for it. Endeavours were also made to collect native craft from the country round; but seaworthy boats fit to ply between the anchorage and the landing-place at that season of the year could only be procured with great difficulty.

The consequence was, that when the *Court Hey* and *Jacques Fourestier* arrived at False Point, on the afternoon of the 4th June, not a single boat was ready to unload them. On the 5th, the lighthouse keeper began work with his own boat; and on the 6th, M. Fressanges' boats arrived: no other boats of any size were procurable. Up to the 7th, only 791 bags had been landed. At this time rice was selling in Cuttack at the rate of $3\frac{1}{2}$ *sers* of 105 *tolás* for the rupee. On the 11th the lighthouse keeper reported that 2526 bags had been landed. He had got six boats, besides his own, at work; but when boatmen and coolies were collected, they were in such a state of emaciation, that they could scarcely do anything until they had been fed up for a few days. The weather, too, was dreadful; the boats could not make more than one trip a day to the ship, under any circumstances: subsequently it was reported that several days were often occupied in one trip. On the 13th June the *Court Hey* was cleared out.

The rice, when landed, was sent off as fast as possible to Cuttack, and to other places in the interior of the District; but there was great delay in the transport. The greater part of the cargo was not received in Cuttack till early in July, and as late as the 12th some little remained *en route*. The rice was sold to the Government departments and others at cost price, according to the Board's instructions. With regard to the cargo of the *Jacques Fourestier*, which had been sent down on private account, and the owners of which had been guaranteed the price of Rs. 5. 10. 0 a *maund*, or 15s. 6d. a cwt., the Collector reported that the merchants of Cuttack were unwilling to buy any considerable quantity of rice, as some little (about 1200 *maunds* or 44 tons) had come into the District by carts from the south, and that there was a tendency in the market to fall. At any rate, the merchants did not come forward at once to buy the cargo, being probably deterred by the enormous difficulties of transporting it inland at that season of the year. The Board, therefore, authorized the Commissioner to purchase the cargo of the *Jacques Fourestier* at the guaranteed price, for the Relief Committee, and to sell it at any places and prices which he thought best, with the object of easing the market. This was accordingly done.

On the 12th June the steamer *Moulmein* arrived with 4174 *maunds* of commissariat rice for the troops; and before the 11th July, the following four ships arrived in quick succession with rice sent by the Board, viz. *Gustave*, with 10,000 bags of rice, on the 20th

June; the steamer *T. A. Gibb*, with 2360 bags, on the 1st July; the *Bushire*, with 7500 bags, on the 8th July; and the *Charles Maureau*, with 8500 bags, on the 11th July. The landing of the *Moulmein's* cargo was accomplished under difficulties as great as those which had attended the clearing of the *Court Hey*. Sufficient boats could not be procured, the weather was bad, and no storage was available, except some small rooms in the lighthouse. Improved arrangements were made in July, when the other vessels arrived: more boats were procured; the Irrigation Company placed one of their English assistants at the disposal of the Collector, for the purpose of superintending the landing arrangements, and gave up their storehouses; M. Fressanges also made over his storehouses to the Collector. The unloading of the ships, however, gave full employment to the landing boats and establishment. In August and September the following two ships arrived, bringing 31,000 bags of rice, namely, the s.s. *Asia*, with 20,092 bags, on the 10th August, and the *Sparkler*, with 11,000 bags, on the 13th September. The difficulties connected with the landing and internal distribution of the rice had been so successfully overcome, that in September the landing establishment was not fully occupied; and before the *Sparkler* had discharged her cargo in October, the local authorities brought to the notice of the Board, that owing to the great extension of relief operations which they had been able to make in September, the rice, which had been imported to False Point, would quickly be exhausted. It will be convenient here, therefore, to briefly narrate the measures adopted by the local officers and the Relief Committee for distributing the rice to the people.

It has already been mentioned, that at a public meeting of official and non-official residents of Cuttack, held on the 28th December 1865, it was resolved to raise subscriptions to meet the want which was expected to prevail in the following April. Three of the engineers of the Irrigation Company stated that they were prepared to employ 5000 labourers; and in addition to the payment of their regular wages, to supply them with rice at half a *ser* per rupee below the market rate. On the 5th March the Commissioner urged the Committee to collect the subscriptions. On the 27th April they set operations on foot. Rice was purchased from *zamíndárs* and merchants, who sold it to the Committee very much cheaper than the market rate, in view of the object to which it was to be devoted. This rice was distributed to the indigent in the shape of cooked food

under the superintendence of the Civil Surgeon, Dr. J. M. Coates. The allowance to each recipient was fixed at 6 *chhatáks* of rice (local weight), nearly equivalent to 16 ozs., besides some vegetables or pulse (*dál*), and this was considered by the medical officer as sufficient to support life in health. The distribution was restricted to those who were really unable to earn their own livelihood. Gratuitous relief was refused to the able-bodied, for whom ample employment was provided by the Irrigation Company.

Up to the 29th May, the subscriptions amounted to £244, 18s., of which £50 was contributed from a fund raised in Calcutta by Messrs. Sykes & Co., a private firm. The number receiving gratuitous daily relief had risen to 1222, and it was evident that the calls on the Committee would increase rapidly. At the end of May, when an allotment of £1000 was made to the Cuttack Committee from the balance of the North-West Famine Relief Fund, it was found impossible to convert this money into food on the spot. Although rice was nominally selling at the rate of 3½ local *sers*, or about 4½ standard *sers*, per rupee, it was practically not procurable in any quantity, even at this prohibitory price. They telegraphed, therefore, to Government on the 29th May, requesting that 100,000 *maunds* or 3660 tons might be bought for them, and sent down to False Point. The Committee were anxious to open relief centres in the interior; but, even with money in their hands, they were helpless until rice could be imported. On the arrival of the *Jacques Fourestier* early in June, the Committee wished that the whole cargo should be made over to them, to be disposed of by gratuitous distribution, and by open sales to all comers, at the rate of Rs. 5 a *maund* (about 1½d. a pound). They also applied to Government for a further grant of £10,000, to be applied to the purchase of rice for sale at low rates, or for another cargo of rice, proposing to meet out of the funds at their disposal the loss which would accrue from such sales. Pending the reply of Government, the Committee purchased 500 bags of the *Jacques Fourestier's* rice, with which operations were in the meantime carried on.

To the Committee's application the Board replied, that they might buy as much of the *Jacques Fourestier's* cargo for their own purposes as their own funds would admit. These instructions were followed by a letter of instructions from the Board to the Commissioner, dated 5th June, in which the following principles were laid down:—*1st*, That all grain should be kept under the charge of the Collector

of the District, as distinguished from the local Committee. *2d* That he should make arrangements for sale of the rice to all comers at cost price, at as many depôts as possible, or (when the market rate was lower than cost price), at a price a little above the market rate; but that in these operations there should be the least possible interference with trade, and especially that the traders should on no account be under-sold. *3d*, That these sales at cost price to all comers should be entirely distinct from the operations of the Relief Committee, and the accounts kept separate. *4th*, That the Collector should sell no rice at lower rates than those fixed above but that the Relief Committee should have full discretion to supply rice gratis, or at any low price, to those who might be considered deserving of such relief. *5th*, That the Relief Committee should be freely supplied by the Collector with rice from the imported stores, for their distributions and sales, being debited at full cost price for any rice they might take.

The Committee strongly remonstrated against these instructions; but they were, however, ratified by the Government of Bengal, on the 26th June, when it was strongly insisted upon, that the rice imported by Government should on no account be sold from the Government stores to the general public below the ruling market price, and that rice should be sold on more favourable terms to the destitute only through the agency of the Relief Committee. The Committee a second time protested against the principles thus laid down by the Government; and at a meeting held on the 6th July, recorded a resolution that the instructions were calculated to aggravate distress, and to act as a premium to private traders to keep up the price to the then existing rate of 3½ *sers* per rupee, and that the destitution was so universal that any attempt at partial gratuitous relief by selection was impossible. A protest to this effect was telegraphed to Government; and, pending a reply, the Committee reverted to their system of sales to all comers, at the rate of 5 *sers* per rupee, or about 1½d. per pound.

On receipt of the Committee's protest, the Board, after communication with the Government of Bengal, telegraphed that it would be contrary to the principles of the instructions of the Government of India to under-sell the traders from the Government stores. The Committee had, however, full authority to sell rice to any one whom they think entitled to receive it, at less than cost price. But the Government could not relieve them of the duty of making some selec-

tion, or act upon the assertion, now made for the first time, that the whole population was reduced to a common level of destitution. With reference, however, to the unsettled state of the market, the Government gave the Commissioner discretionary power to fix the selling price of rice, from the Government stores to the general public, at half a *ser* or a *ser* cheaper than the current market rate; but with such sales the Committee were to have nothing to do. At a meeting held on the 11th July, the Committee resolved to act on these orders. The shops which had been opened for sales to all comers were transferred to the charge of the Collector; and the Committee's sales, at low rates, were restricted to such persons as might be specially regarded as entitled to such a privilege.

Meanwhile, the Committee had been extending their operations for gratuitous relief. In June, orders were given to send 500 *maunds* of rice to Kendrápárá, and to raise the daily allowance to each pauper there. Gratuitous distributions were commenced at False Point; six branch relief houses were opened in Cuttack town; and it was resolved to open centres at Jájpur, Táldandá, and two other places in different parts of the District, besides that already opened at Kendrápárá. Rice was also entrusted to the officers of the Irrigation Company for distribution. The Superintending Engineer had promised to provide light labour for those who, though not up to full work, were capable of doing something, and who were to be remunerated by a daily portion of food from the Committee's centres. The introduction of this light labour considerably reduced the number of those receiving gratuitous relief.

Mr. Kirkwood, who had been appointed to the District as Assistant-Collector on account of the pressure of work caused by the famine, was placed in special charge of the operations as Relief Manager early in July. His duty was to superintend the charitable distributions in Cuttack; to supervise the light labour operations and the payment of the labourers in grain; to establish, control, and occasionally to visit the centres in the interior, keeping them supplied with rice; to keep all accounts, and to report his proceedings to the Committee at their weekly meetings.

At a meeting of the Committee held on the 11th July, a recommendation was rejected that stores should be opened for the gratuitous distribution of uncooked rice, to those whose feelings of caste prevented their attending at the public distributions of cooked food. The Committee based their refusal upon the grounds that

as the food was cooked by Bráhmans, caste could not be affected by eating it, and that therefore those who were too proud to accept it were no fit objects of charity. The Famine Commissioners, although holding that many more persons who were deserving of gratuitous relief would have been reached by the distribution of uncooked food, yet considering the insufficiency of the supply of rice for such relief as would reach the entire starving population, were of opinion that 'the Committee acted wisely and secured the greatest good by restricting their gratuitous distribution to the mode which was least open to the chances of abuse, and to the possibility of the rice being diverted from its legitimate object; and certainly, the distribution of cooked food was that mode.'

During July, resolutions were passed that, in the light labour yard, a certain minimum of daily work should be required from each pauper, on the performance of which he should be entitled to rations; and that any work done in excess of the minimum should be paid for upon a scale which would enable an industrious man to earn an *ánná* a day in addition to his rations; that persons in receipt of more than Rs. 10 (£1) a month should be allowed to purchase rice from the Committee at low rates; that low-rate sales should continue to be made to selected individuals at the rate of 5 *sers* per rupee, but that no more than 4 *ánnás* (6d.) worth was to be sold to each person daily. At the meetings in August it was decided that labour should be paid for in uncooked rice; that all orphans and stray children should be searched for, clothed, and fed; that a system be introduced of supplying yarn to be spun in their houses by widows and respectable females, who should be paid for their labour in rice. Arrangements were also made for clothing the naked, and for providing additional hospital accommodation for the sick. On the 10th August the Committee resolved to raise the allowance of cooked rations to 7 local *chhatáks* (18 ozs.) for an adult, and 4 *chhatáks* for a child. The rates of relief sales were also reduced to 6 *sers* per rupee of good, and 9 *sers* per rupee of inferior rice; on the 7th September they were further lowered to 7 *sers* of good, and 11 *sers* of inferior rice for the rupee. The establishment of additional centres in the interior was also rapidly pushed on. The extension in the Committee's operations is shown by the following statement of the relief given in the last week of each month from June to October:—

OPERATIONS OF THE RELIEF COMMITTEE, JUNE—OCTOBER 1866.

Last week of	Number of Centres in Operation.	Number of Bags of Rice given in Gratuitous Relief.	Number of Bags sold at Cheap Rates.	Daily average number of Persons Relieved.	Number included in previous column who did light labour.
June, ...	4	54	113	1,301	220
July, ...	23	258	628	8,164	1,665
August, . . .	32	736	821	20,562	5,503
September, . .	41	1793	1374	32,000	15,000
October, . . .	43	2556	841	33,210	13,449

At every centre, shelter was provided for the paupers; and at most places mattresses of gunny cloth stuffed with straw were provided. Clothes, also, were largely supplied.

In the meantime, Government sales were also carried on, under a separate organization; and a set of rules was drawn up for the storage and sale of the rice by the Collector. In the regulation of these sales, the object was to increase the supply of food which was available to the people *in exchange for money*, by supplementing the very small trade which existed; and yet to avoid the danger of supplanting that trade, or of checking any increase of imports on private account, which, under ordinary circumstances would naturally have been attracted by the prevailing high prices. At the same time, the very exceptional state of things, which compelled the Government to enter the market as a trader, rendered it legitimate and proper to counteract, as far as possible, any extreme abuse of the powers of combination which that state of things had virtually given to the few dealers who carried on the trade. With a view to meet these objects, it was determined to fix the price at which rice should be sold at the Government shops slightly below the current market-rate, varying the price with each rise and fall of the market, but limiting the quantity to be sold to one rupee's worth daily for each applicant. On these principles, shops were opened in the town and elsewhere. In the matter of drawing down the market prices, they were found to succeed; that they afforded much practical relief is certain, for these sales reached a different and higher class of people, who had money to give in return for rice, and whose feelings

would not have allowed them to appear as applicants for public charity at the relief centres, at least until they had reached such a state of debility as to place them beyond the hope of recovery. The number of these shops was, however, always limited by the supply of rice; and whenever the supply at any place was in danger of running short, it was properly made a rule to restrict or discontinue these sales, rather than to contract the operations of the Relief Committees, on which the issues of life and death more directly depended.

Had rice and a trustworthy distributing agency been available, these sales, at rates just below the market prices, might well have been increased fifty-fold, with the greatest benefit to the people, and without interfering with private trade to any perceptible degree. Indeed, the operations of private trade were so limited as to be scarcely appreciable. Whatever may have been the extent of the stocks in the District, all reliance on them as a source of any considerable supply to the public was at an end by the month of July. Those who held grain naturally retained it for the consumption of their own families and dependants. The quantities derived from private import were utterly insufficient to meet the demand. A trifling quantity found its way from Ganjám in June; and afterwards, as soon as communication by the Mahánadí was opened, importations were commenced from Sambalpur. On the 12th October the Commissioner reported that eight or ten boats of private rice were arriving daily; but that the merchants were manœuvring so as to keep up prices, by allowing only small quantities to find their way into the market at one time. The Cuttack merchants made no attempt to import rice by sea; indeed, on two occasions when vessels were brought into False Point on account of a Calcutta firm, the local merchants did not come forward to purchase, being evidently deterred by the risk of buying at such high prices as were demanded for the rice landed at False Point, and by the extreme difficulty of transporting it inland.

Government relief was also afforded to the distressed in the shape of public works. These were of two kinds; namely, works executed by officers of the Public Works Department, and those supervised by the local District officers. During the last seven months of the official year 1865-66 (October 1865 to April 1866 inclusive), the sum of £7201 was expended in public works out of a budget allotment of £11,248. During the first seven months of

1866-67 (May to November 1866 inclusive), £5553 were further expended, making a total of £16,801 expended by the Public Works officers from the commencement of the distress in October 1865, till its end in November 1866. During the same fourteen months, the sum of £1358 was also expended in works under the supervision of the District officers.

The general condition of the country from June to September may be pictured from the following paragraphs, which I quote *in extenso* from the Report of the Famine Commissioners (vol. i. pp. 93, 94):—

'In June, all Orissa was plunged in one universal famine of extreme severity. Although there never were such crowds of starving people and such mortality in the town of Cuttack as in Balasor and Bhadrakh, the state of Cuttack District, in which famine had been so recently discovered, was already as bad as possible. Mr. Kirkwood says that in June, at Táldandá, the distress could not be exaggerated; it was impossible to keep any sort of order among the famishing crowd, and "for miles round you heard their yell for food." The relief afforded by importation was as yet extremely small; in fact, except in the town of Balasor, hardly appreciable. In Balasor town several thousand persons were fed throughout the month, but at Bhadrakh, and in the interior of the District, the unrelieved distress was very great. In Purí, there having been no importation by sea, the relief afforded was very small. There was not, at this time, the same visible rush of starving masses in Purí as in the other Districts,—a fact due, no doubt, in part to the inability of the Collector to offer food, and in part attributed to the greater exhaustion of the people and the greater mortality which had already occurred. The only redeeming circumstance was that the rains had commenced very favourably; the agricultural classes (who set apart the seed-grain as something sacred, and keep it in a different shape from that intended for food) had still seed to sow most of their fields; and for those who could hope to live till harvest, there was a prospect of relief in the distant future. Perhaps, on the whole, among all but the better class of *rayats*, there was as much quiet suffering as in any month of the year. But in Cuttack and Balasor Districts the mortality was certainly not so great as in July, when the suffering had lasted longer.'

'In July, some centres for the distribution of cooked food had been established in the interior of the Districts, more were established in August, and in September nearly the full number of feeding-places were in operation. The number of centres eventually established in

each District was as follows:—Cuttack, 43; Balasor, 22; Puri, 23. The most frightful suffering visible at a European Station was at Balasor, where great masses of people congregated in a most wretched condition. The number of starving sufferers at Bhadrakh was also enormous.

'The mortality may be said to have reached its culminating point at the beginning of the second week of August, during the heavy rains which preceded, and caused, the disastrous floods of this same year.* The people were then in the lowest stage of exhaustion; the emaciated crowds collected at the feeding-stations had no sufficient shelter, and the cold and wet seems to have killed them in fearful numbers. The defect of shelter was remedied, but the people throughout evinced great dislike to occupy the sheds erected for them. In August, the mountain streams which intersect Orissa rose to an almost unprecedented height; the embankments were topped and breached in all directions, and the whole of the low-lying country was flooded by an inundation which lasted for an unusual time, and which caused the terrible aggravation of the distress. Mr. Kirkwood thus reported to the Collector:—"The houseless poor looked in vain for shelter from rain that penetrated everywhere. The known deaths from diarrhœa and dysentery and other similar diseases increased greatly. It is feared that the unknown deaths must have been still more numerous, for persons could not reach the *ánnáchhatras* or relief depôts, to which alone they looked for support. In most of the low-lying lands, the *biáli* or autumn rice crop, which would have been reaped in another week or fortnight, was almost entirely destroyed, and the young cold-weather crops suffered much from protracted immersion. Although new relief centres were opened, yet in several cases it was found quite impossible to supply those already opened with rice, owing to the boats from False Point being unable to make way against the powerful current that then came down; and at several centres operations were altogether suspended. The result of this was a great aggravation of the already existing distress; for those who were congregated at the centres found, when the stock of rice ran out, that they were cut off by the floods from other aid, and many died from sheer starvation."

'In September there was some relief, not only by the greater extension and better supply of the feeding centres and sale depôts, but also from the ripening of the small early crop of rice in tracts which

had escaped the flood. At best, however, the distress was still but a degree less than before; rice still sold at 6, and even 5 *sers* for the rupee; and it may be doubted whether the results of previous suffering, joined to its present continuance, and the effect of unaccustomed food on those who were much reduced, did not cause the mortality to be almost as great as ever. Many, who had lived so long, died when they received the meals to which they had long been strangers.'

Up to the end of September, the quantity of rice imported by ship at False Point was as much as could be utilized with the means at the disposal of the local officers and of the Relief Committee. In October, however, the supply of imported rice fell below that required to keep employed the available means of landing and internal transport. Owing, apparently, to misunderstandings between the local officers and the Board of Revenue, steamers were not chartered for the conveyance of rice from Calcutta or Burmah in due succession; and two French ships, which touched at False Point with rice-cargoes, were allowed to leave with their cargoes intact.

'The effect of the October shortness of rice in Cuttack District is thus described by the relief officer, Mr. Kirkwood:—"In the month of October, I believe we could have sold ten and twenty times as much, with immense good. People used to flock in, in crowds, especially at Táldandá, and we had no rice to give them. There was no *bázár* at Táldandá, and rice, so far as I know, was not procurable about there. I have never seen such scenes as I saw at Táldandá in October. When it became known that it was the last day of the sales, the rush and the struggle to buy were fearful. In October we were perfectly destitute of rice for sale. At the end of September we heard that supplies were not coming; and I issued an order, with the approbation of the Relief Committee, that no sales should be made unless there was a reserve of 200 bags at least at any centre. Up to the present time, we have never, since the check at the end of September, obtained regular supplies for sales, but gratuitous relief has never been checked." The stocks in hand happily sufficed to maintain (though with great difficulty) the feeding-centres; and though in some parts of the country the stoppage of sales was very much felt, in others the market was somewhat eased in the course of October; some new grain became available; and the crop on the ground was, no doubt, somewhat discounted, the small remaining stores being brought out.'

Details have been already given on a previous page of the importations of grain into False Point up to the 13th September. The stoppage of supplies in October was only prevented from being complete by the arrival of the *Coringa* on the 5th October with 5061 bags, which were at once unloaded at False Point. This relief was most opportune for Cuttack District; but the *Coringa's* cargo had been intended for the supply of the Bhadrakh Subdivision of Balasor, and the failure of this supply at the port for which it was originally intended, and where its arrival was hourly expected, was disastrous to Bhadrakh, and indeed to the whole of Balasor District. No further supply was received at False Point (with the exception of a small quantity landed from the *Pie IX.*) till the 15th November, from which time the supply was ample. Between the 15th and 29th November the following four vessels arrived:—The *Thurso*, on the 15th November, with 9878 bags; the *Rohomania*, on the 22d November, 3550 bags; the *Dundas Castle*, on the 26th November, 6954 bags; and the *Asia*, 29th November, 8750 bags. After this last date importations ceased.

In November the new crop began to come into the market in considerable quantity, and then the general famine may be said to have come to an end. The people returned to their avocations, leaving only the very emaciated, the orphans, and the widows. Considerable distress, however, still existed in the unfortunate tracts which had suffered a second calamity by the floods of August, particularly in the Kendrápárá Subdivision; and in these, relief operations were continued for some time further.

The general system of relief adopted, and the measure of success which they attained, is thus described by the Famine Commissioners in their Report (vol. i. pp. 96-98):—'Throughout all the operations of the whole famine season, the distribution of food to the starving at the relief centres was, with little exception, never interrupted. During by far the greater part of the season, these centres were not numerous enough; but it was a proper prudence not to establish more than could be maintained with safety, for if, after crowds of famishing people had been assembled, the supply had failed, the consequences would have been painful beyond measure. Wherever rice could be spared from the charitable distributions of food, it was sold; and the difficulties and disadvantages of the gratuitous distributions were so great, the famine was so much more one of food than of money, that it may be almost said that the rice sold did

more real good than that distributed. The system was to sell at two rates,—one at or near market-rates (so far as market-rates existed), and the other cheaper; the former sales being conducted by Government officers, the latter limited to selected persons intermediate between the very poor and those better off, to whom tickets were to be given by the members of the Relief Committees. This last system, however, though it sounds well in theory, seems practically to have failed. The Committees were very unwilling to exercise an invidious distinction; the privilege was sometimes given to classes which led to imposition; and altogether there was much confusion and abuse, and sometimes terrible crowding and struggling. There seems to have been almost no limit to the quantity of rice which might have been sold at very high prices, if it had been available.

'With respect to the whole system of distribution, the difficulties of obtaining trustworthy superintendence are said to have been extreme. Possibly they were somewhat exaggerated, in consequence of the very unfavourable opinion of the Uriyás which had been entertained; and if there had been more rice, perhaps it would have been better to have trusted the people more, and to have submitted to the necessary abuses. But this question, as well as all those connected with the possibility of establishing more centres and more extended relief, are rendered of little avail, as being subordinate altogether to the supply of rice, on which everything depended; and this supply being limited, more gratuitous centres would but have involved smaller sales.

'In the arrangement of the feeding-centres, it may be said that there were three main difficulties. First, the test of admission. So sudden were the arrangements, so overwhelming the crisis, and so small the official staff, that it is to be feared that, with a consideration for sex and age, the only general test applied was that of extreme emaciation; and of those sufficiently emaciated to obtain admittance, too many never recovered. For those not so bad, the attempt was generally made to provide some kind of labour, real or nominal, and food was given in return for labour. But when rice was short at the more distant centres, those who seemed tolerably able-bodied were turned out of these gangs and told to go elsewhere. The works of the Irrigation Company were nearly stopped during the rains, and the returns of expenditure show that the numbers employed by the Public Works Department at that season were

small. It was almost impossible to carry on works then. Second, it was seldom possible to establish the centres within such a moderate distance of one another that the recipients could come daily for it from their houses, the more so as it was the season of the rains. The centres became, therefore, the temporary homes of crowds of houseless mendicants, and the recipients of relief lived in a manner which must have been demoralizing and debasing in the extreme. Third, there was much caste prejudice, and many were deterred from seeking food till it was too late. Some died without seeking it at all.

'There can be no doubt that all these causes exercised a very deterrent effect, and that of those who eventually sought and obtained relief, a very large proportion unhappily died. Every sort of bowel complaint carried off great numbers. We are told on all hands of many who, ravenous with hunger, ate food uncooked, and very rapidly succumbed. Of those who survived for a time, the intestines of many were found to swarm with parasitical creatures to a degree which prevented their recovery,—no doubt a result of unwholesome food.

'It seems to us that a too complete prominence is given to the third of the causes which we have mentioned as deterring people from coming for food, viz. caste prejudice, to the exclusion of the other two, and still more to the exclusion of the fact that the relief came too late. To say nothing of that which our former observations will have shown, that if much larger numbers had come to the centres, either they could not have been fed at all, or could only have been fed by stopping the sales and starving the better classes, it is abundantly clear that the harm had, for the most part, been done before feeding-places were within reach of the mass of the population. And that, in truth, it was not caste or prejudice that was the main cause of mortality is very evident from the fact, that it is stated on all hands that by far the greatest loss of life has fallen on those lower castes who had least caste prejudice, whose manner of life least unfitted them to avail themselves of public relief, and who were most accustomed to labour.

'The system followed at almost all the centres was that of giving food ready-cooked to the crowds assembled at meal-time. The quantities allowed were various, as were the details of the diet. Every effort was made to introduce a good and uniform system, but the exigencies were such that it was impossible in practice to do so

completely. The scarcity of rice was so great, the demand so enormous, and the fear of abuse so constant, that the general tendency necessarily was to make the allowance somewhat scant, but on the whole great good was done by much praiseworthy exertion. The members of the Relief Committees deserve the greatest credit for their exertions. It was in every way the wisest and best policy to enlist in this great service of humanity all the best of those who were willing to aid, European and native. Much was thus done which an official agency alone could not have achieved, and the public confidence and concord thus secured were of the greatest possible advantage.

'It is very difficult to trace exactly how much food from time to time reached the mouths of the people. The supply was always so uncertain, the transport so intermittent, and the necessities so undefined, that at every depôt there was a constant fear of running short, so that not only was the quantity of rice which had arrived on the coast at any particular time far in excess of the quantity landed; the quantity landed in excess of the quantity transported to the chief depôts; that quantity again in excess of the quantity made over for actual relief operations; but again, this latter quantity was in excess of that actually brought to use. At every centre it was found necessary to keep up a reserve stock. All these deductions being made, it will be found that the relief afforded throughout the greater part of the famine was painfully small in proportion to the population. By far the largest quantity of rice was distributed at the greatest number of places in Cuttack District. In Puri, the relief was positively later, and relatively to the commencement of the distress very much later, than in other Districts, and the whole quantity distributed was smaller. In Balasor, owing to the failure of supply in August, most of the centres in the interior were established comparatively late. The Bhadrakh Subdivision, supplied from the Dhámrá, being distant from both Balasor and Cuttack, may be considered as for famine purposes almost a separate district. The Dhámrá supply came, as we have seen, very late, and it was never sufficient to admit of sales to the public, being barely enough to supply the great feeding-centres, where the numbers were enormous. It was in this part of the country, at Dhámnagar, that the highest quoted prices are mentioned (1 *ser* per rupee); and notwithstanding the admirable energy and management of Mr. Shortt, the suffering was very great.'

Respecting the general mortality throughout Orissa, the Famine

Commissioners state as follows (vol. i. pp. 20, 21):—'The extent of the mortality never will be ascertained with any accuracy. The Commissioner estimates it at not less than one-fourth of the population of the Province. In his supplementary report of November 6th, he shows that in the Subdivision of Kendrápárá, one-fourth of the people are estimated to have died before 1st August; and the mortality consequent on emaciation and want having continued for several months subsequent to that date, and having been, in the part of the country alluded to, very considerably aggravated by floods, he indicates a more excessive proportion in particular parts. The Lieutenant-Governor has recently estimated the mortality at one-fifth of the population, but we are not informed of the grounds of that estimate, nor can we attempt to say which is nearest to the truth. The police have made some rough returns by counting houses, lately and now occupied, but they can be little relied on. We can only say, that the mortality, without doubt, has been enormous. Perhaps some of those who have witnessed the most horrible scenes may be inclined to take a more gloomy view of the destruction than will be borne out when the survivors have settled down again in quiet and comfort. We do not think that the appearance of the country generally warrants any estimate of the loss of one-half of the population; and even one-fourth might seem too high an estimate, if it referred to able-bodied adults only, in the parts of the country which we have seen. It cannot be there said that one-fourth of the land has generally ceased to be cultivated, nor probably that one-fourth of the families have ceased to exist. But, on the other hand, the mortality has undoubtedly been so great among the old and the young of so many families which have escaped total destruction, and in so many parts the great mass of the proper labouring population (as distinguished from farming *rayats*) seems to have been really so swept from the face of the earth, that we cannot take upon ourselves to say that the estimate of one-fourth is too high, even in parts which have not suffered much from the floods of 1866.'

Roads and Other Means of Communication.—The chief road in Cuttack District is the Grand Trunk Road from Calcutta to Ganjám, which enters the District from Balasor, near the point where the Baitaraní river is crossed by the High-Level Canal, and passing by Cuttack city, enters Puri District a few miles on the farther side of the Mahánadí. From Cuttack city issues a branch of this road,

known as the Calcutta Road, which proceeds due south to the town of Puri. Both these roads are under the management of the Public Works Department, as also are the greater number of the numerous ferries in the District. Of roads under the local administration, the most important are,—(1) from Cuttack city to the rising port of Chandbáli, on the Baitaraní river in Balasor District, passing by Kendrápárá, Patámundái, and Aul; (2) from Cuttack city to Táldandá, along the right bank of the Mahánadí, and parallel to the Táldandá Canal; (3) from Kurakhyá, on the Grand Trunk Road, to the Subdivisional town of Jájpur; (4) from Jáyapur, on the Táldandá Canal, to Jagatsinhpur, on the Máchhgáon Canal.

The Calcutta Gazette of 19th April 1876 contains the balance sheet of the Cuttack District Road Fund for the year ending September 1875. From this it appears that the total income during the year, excluding balances, amounted to £3765, 12s. 0d.; of which £2799 was raised under the Road Cess Act, £373 came from ferry tolls, and £500 was a grant in aid from the Provincial Reserve Fund. The total expenditure for the same year, also after deducting balances, was £5182, 2s. 0d., of which £2244 was spent on original works, and £2069 on repairs. The Commissioner of the Orissa Division, in forwarding the report of the Road Committee, writes as follows:—'So far, the Road Cess Law has worked smoothly and well. I believe that it has been accepted by all classes without serious objection, and is likely to prove a most popular and useful measure, not only in providing funds for local roads and improvements, but as affording *zamíndárs* a clear insight into their assets, and *rayats* and tenure-holders a useful record of their rights and rents; thus securing confidence between landholders and tenants, and materially improving *zamíndárí* management.'

The canal system of Orissa, which is largely used for navigation, has already been fully described. The latest statistics of the traffic are given on a subsequent page. The total length of all the means of communication in Cuttack District is returned as follows in 1876:—Rivers, 527 miles; canals, 135 miles; total length of water communications, 662 miles: first-class roads, 72 miles; second-class roads, 173 miles; third-class roads, 336 miles; total length of roads, 581 miles.

THE MANUFACTURES of Cuttack District are insignificant. Brass vessels, brass ornaments, and coarse cloth are the chief articles made. The total annual out-turn of the cotton looms is roughly valued at £30,000; the brass and copper work at £6000; the oil-

pressing at £7600; the miners' work at £8500. Silver filigree work, the specialty of the majority of Cuttack, which has been already alluded to, is confined to a very few workmen. The salt manufacture has greatly declined in the District, as compared with Balasor and Puri. There are said to be difficulties of transport from the Cuttack coast, which add to the charges and decrease the profits of the locally made article. The Resolution of the Lieutenant-Governor of Bengal, on the Annual Administration Report of the Commissioner of the Orissa Division for the year 1875-76, gives the following figures. During that year there were manufactured in Cuttack only 26,519 *maunds* (less than 1000 tons) of salt, against a total consumption of 202,324 *maunds*, or 7407 tons. The salt revenue realized was £4251, 18s. 0d.; and the average consumption, 5 *sers* 6 *chhatáks* or nearly 11 lbs. per head of the population.

COMMERCE AND TRADE.—Till within late years, trade had hardly any existence in Orissa; but the improvement of False Point harbour has recently opened a market for the surplus rice of the Province, and internal distribution has been facilitated by the development of the canal system. A full account of the sea-borne trade of False Point, which is virtually that of Cuttack District, has been already given (pp. 31-32). It may be briefly stated in this place that the total imports during the seven years ending 1875-76 amounted to £652,800, having risen from about £31,000 in 1869-70, to nearly £140,000 in 1875-76. The total of the exports in the same seven years aggregated £618,609, having increased from £18,000 to £127,000.

The table on the following page, which has been compiled from the monthly numbers of *The Statistical Reporter*, exhibits in detail the traffic on the Orissa canals for the six months ending April 1876. The total amount under Class I. (articles registered by weight only) was 286,732 *maunds*, or 10,497 tons; of which stone formed 31 per cent.; paddy, 22 per cent.; rice, 19 per cent.; spices and condiments, 9 per cent.; and unrefined sugar, 5 per cent. In Class II. (articles registered by number only), the only important items are 4690 logs of timber, and 143,331 bamboos. The traffic in Class III. (articles registered by value only) is altogether insignificant.

The land traffic of Orissa with Madras, which passes along the Grand Trunk Road, is now registered at Rambhá, a station on the Ganjám side of the frontier. During the first quarter of 1876 the total exported from Cuttack District by this route amounted to

12,746 *maunds*, or 467 tons, in Class [illegible] *nil* in Class II.; and £370, 16s. od. in Class III. The [illegible]s I[illegible]rts into Cuttack during the same three months reached a tot[illegible] imp[illegible]lass I. of 30,603 *maunds*, or 1120 tons, of which salt formed [illegible]al in [illegible]uch as 75 per cent.; in Class II., miscellaneous, 190; in C[illegible]as. III., £416.

TRAFFIC REGISTERED ON THE ORISSA CANALS DURING THE SIX MONTHS ENDING APRIL 1876.

Description of Goods.	November.	December.	January.	February.	March.	April.	Total.
CLASS I.	*maunds.*	*maunds.*	*maunds.*	*maunds.*	*maunds.*	*maunds.*	*maunds.*
Coal and coke,	...	...	...	...	1,820	...	1,820
Cotton,	366	...	100	100	100	130	796
Fuel and firewood,	...	...	...	...	...	458	458
Fruits, dried,	...	...	...	...	...	2,788	2,788
Fruits, fresh, and vegetables,	380	...	...	...	...	...	380
Wheat,	...	...	...	...	93	613	706
Pulses and gram,	255	66	135	1,610	279	1,243	3,588
Rice,	4,103	3,645	6,677	6,900	10,150	22,242	53,717
Paddy,	14,991	6,202	8,154	9,436	8,806	16,656	64,245
Jute,	38	850	100	...	...	...	988
Fibres, manufrs. of,	80	...	...	...	400	...	480
Gums and resins,	...	...	...	200	300	425	925
Hides,	1,609	1,922	900	230	1,000	760	6,421
Horns,	...	...	160	...	...	...	160
Iron,	...	...	...	400	94	...	494
Copper and brass,	...	...	...	...	100	...	100
Lime and limestone,	500	834	875	3,728	1,190	...	7,127
Stone,	23,743	15,455	13,676	7,406	15,800	11,655	87,735
Shell-lac,	...	...	...	...	300	...	300
Linseed,	...	1,200	223	306	...	...	1,729
Mustard seed,	...	460	...	...	...	2,321	2,781
Castor-oil seed,	775	...	...	...	...	...	775
Opium,	...	...	...	395	...	...	395
Salt,	1,033	802	380	721	400	1,826	5,162
Saltpetre,	...	260	...	...	...	...	260
Other saline substances,	...	410	...	...	100	...	510
Spices and condiments,	8,281	5,008	2,454	100	3,016	6,227	25,086
Sugar, unrefined,	2,689	2,790	...	2,118	5,422	636	13,655
Tobacco,	...	...	...	25	...	...	25
Miscellaneous,	200	200	1,405	250	312	759	3,126
Total,	59,043	40,104	35,239	33,925	49,682	68,739	286,732
CLASS II.	Number.	Number.	Number.	Number.	Number.	Number.	Number.
Timber,	1,367	1,400	475	104	359	985	4,690
Bamboos,	44,900	22,600	24,410	11,933	29,657	9,831	143,331
Bricks and tiles,	...	...	...	2,760	...	...	2,760
Gunny-bags,	...	50	20	...	...	...	70
Miscellaneous,	...	...	400	...	...	...	400
CLASS III.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Miscellaneous (native) goods,	260	3,300	...	...	25	...	3,585

MINES AND MINERALS.—There is a considerable iron-smelting industry in the hill country that bounds Cuttack District on the west. One large establishment under European management employs 239 men and 131 women; total, 361. The number of workmen employed in the minor works is about 2400. The total annual out-turn of iron is estimated at a value of £20,000.

There are quarries of rubble stone, laterite, lime, and *ghutin* or nodulous limestone. The total number of these is stated to amount to 12, with an annual out-turn of 1,559,855 cubic feet; of which one-third is composed of rubble from a quarry at Naráj, and almost another third of *ghutin* from quarries at Neulpur and Kánpur.

HISTORY OF ORISSA.—In historical interest and in administrative importance, Cuttack is by far the leading District of Orissa; and the town of the same name has continued to be the capital of the Province for the last nine hundred years. It will be convenient, therefore, to present in this place a brief sketch of the history of the entire Province, based upon the more elaborate materials given in my *Orissa* (to which I refer the reader for fuller details and for disquisitions upon the various questions which are yet matters of controversy), and upon Mr. G. Toynbee's valuable monograph on the state of the Province during the earlier years of English administration. Apart from a few necessary references, the description of the several religious developments which figure so largely in the history of Orissa has been reserved for the Statistical Account of Puri District, to which the subject more properly belongs.

THE PRE-HISTORIC PERIOD.—Our earliest glimpses at Orissa disclose an unexplored maritime kingdom, stretching from the mouth of the Ganges to the mouth of the Krishna. It was a long narrow strip of coast, everywhere shut out from the Indian continent by a wide *terra incognita* of mountains and forests. Under the name of Kalinga, it formed one of the five outlying kingdoms of ancient India (viz. Anga, Banga, Kalinga, Suhma, and Pundra), with its capital situated about half-way down the coast, and still surviving in the present town of Kalingapatnam. We soon, however, become conscious of this territory being divided into two parts. The name Kalinga is applied more distinctively to the delta of the Godávarí, while the delta of the Mahánadí on the north gradually stands out as a separate country. The mountain spurs which run down to the sea on the south of the Chilká Lake formed a well-defined natural boundary. A wide debateable land

existed between the two kingdoms; on the north of which dwelt an Uriyá-speaking people, while the south was inhabited by Telegu races, as at the present day. A fitful connection, however, was kept up between the two. The southern division from time to time sent forth settlements into the north, and gave some of the most important dynasties to Orissa. On the other hand, the Uriyá language held its own for centuries, almost to the walls of Kalingapatnam itself.

The northern kingdom, that thus looms hazily forth on the horizon of history, was known as Odra or Utkala. Odra is the aboriginal name, and survives in the present Orissa (Odra-desa). Its second name, Utkala, is unquestionably Sanskrit. Little is known of this country before the sixth century B.C., probably owing to the fact of its being almost uninhabitable. It consisted of a densely wooded delta, where the process of land-making was going on with a vigour that rendered it even more unfit for human settlement than the Gangetic sea face at the present day. The Mahánadí, or Great River, poured itself through a region, half-mud, half-water, and all jungle, into the Bay of Bengal. The shallowest parts were swamps, the deepest parts were brackish lakes; and from time to time the river writhed itself out of its former bed into new channels, twisting backwards and forwards over the delta in snake-like convolutions, turning fens into deep lakes, silting up inland seas into shallow marshes, toiling slowly and ceaselessly, till the firm earth stood up out of the waters, ready for man.

The first human inhabitants discernible in Orissa are the hill tribes and fishing settlements, belonging to the non-Aryan stock. Their descendants still survive and perpetuate their ancient names. Among them, the Savars and the Kandhs have preserved their ethnical identity most intact. The Kandh tribe principally inhabit the hilly region of the Tributary States, and will be described in my Statistical Account of that part of the Province. The Savars appear in very early Sanskrit writings, where they are spoken of with the utmost detestation. The Aryan hatred of these forest tribes rendered the country hateful to Sanskrit writers, and Orissa long held a very different reputation as regards sanctity from that which it enjoys at the present day. It was essentially an impure country. Its people are denounced as having forsaken religious rites, and sunk to the lowest caste known to the Aryan community. Its impurity passed into a proverb,—'He who goes to Orissa must cleanse himself from the pollution.'

THE BUDDHISTS.—In the midst of the wild forest tribes dwelt communities belonging to another stock, and representing a very different stage of civilisation. No Sanskrit story has come down to us of the first Buddhist migration to this remote shore. Bráhmanical literature views them with an abhorrence greater, if possible, than that with which it regarded the forest races. It never mentions their names, and they themselves have left behind them no writings of their own. A Sanskrit text, indeed, informs us that a holy sage in the north had five sons, each of whom founded a military kingdom beyond the Aryan territory. One of them conquered and gave his name to Kalinga. No evidence survives to fix the date of this expedition. Nor do the Buddhist settlements in Orissa, when first they come in sight, bear in any respect the character of a military occupation. The builders, or rather excavators, themselves have long passed beyond the reach of historical inquiry. But their rock habitations survive, and they were certainly not the abode of regal or warlike pomp. They form the earliest historical monuments in Orissa, and are found in many places among the mountains that divide the alluvial strip along the coast from the interior table-land. These caves and inscriptions are principally found in Purí District, especially in the Subdivision of Khurdhá. I reserve a detailed description of these relics of antiquity for my Statistical Account of Purí District, and confine myself to merely a brief mention of them here.

Two sandstone hills, Khandgirí and Udáyagirí, situated about midway on the road between Cuttack and Purí, are completely honeycombed with cells and temples cut out of the rock. The oldest of them consist of a single cell, scarcely larger than a dog-kennel. Several are shaped into strange distorted resemblances of animals. One has from time immemorial been known as the Snake Cave, another as the Elephant Cave, a third as the Tiger Cave. This last stands out from the rock in the form of a monstrous wild beast's jaw, with nose and eyes above, and the teeth overhanging the entrance to the cell. Others are more elaborate, and contain several chambers supported by pillars, and shaded from the sun by a verandah in front.

These sandstone hills in Orissa exhibit what are believed to be the very earliest memorials of Buddhistic life. The small single cells cut in the inaccessible precipices, utterly destitute of ornament, and crumbling from exposure to the air, represent the first human dwellings yet discovered in India. The most recent date which

existed between the two kingdoms; on the north of which dwelt an Uriyá-speaking people, while the south was inhabited by Telegu races, as at the present day. A fitful connection, however, was kept up between the two. The southern division from time to time sent forth settlements into the north, and gave some of the most important dynasties to Orissa. On the other hand, the Uriyá language held its own for centuries, almost to the walls of Kalingapatnam itself.

The northern kingdom, that thus looms hazily forth on the horizon of history, was known as Odra or Utkala. Odra is the aboriginal name, and survives in the present Orissa (Odra-desa). Its second name, Utkala, is unquestionably Sanskrit. Little is known of this country before the sixth century B.C., probably owing to the fact of its being almost uninhabitable. It consisted of a densely wooded delta, where the process of land-making was going on with a vigour that rendered it even more unfit for human settlement than the Gangetic sea face at the present day. The Mahánadí, or Great River, poured itself through a region, half-mud, half-water, and all jungle, into the Bay of Bengal. The shallowest parts were swamps, the deepest parts were brackish lakes; and from time to time the river writhed itself out of its former bed into new channels, twisting backwards and forwards over the delta in snake-like convolutions, turning fens into deep lakes, silting up inland seas into shallow marshes, toiling slowly and ceaselessly, till the firm earth stood up out of the waters, ready for man.

The first human inhabitants discernible in Orissa are the hill tribes and fishing settlements, belonging to the non-Aryan stock. Their descendants still survive and perpetuate their ancient names. Among them, the Savars and the Kandhs have preserved their ethnical identity most intact. The Kandh tribe principally inhabit the hilly region of the Tributary States, and will be described in my Statistical Account of that part of the Province. The Savars appear in very early Sanskrit writings, where they are spoken of with the utmost detestation. The Aryan hatred of these forest tribes rendered the country hateful to Sanskrit writers, and Orissa long held a very different reputation as regards sanctity from that which it enjoys at the present day. It was essentially an impure country. Its people are denounced as having forsaken religious rites, and sunk to the lowest caste known to the Aryan community. Its impurity passed into a proverb,—'He who goes to Orissa must cleanse himself from the pollution.'

THE BUDDHISTS.—In the midst of the wild forest tribes dwelt communities belonging to another stock, and representing a very different stage of civilisation. No Sanskrit story has come down to us of the first Buddhist migration to this remote shore. Bráhmanical literature views them with an abhorrence greater, if possible, than that with which it regarded the forest races. It never mentions their names, and they themselves have left behind them no writings of their own. A Sanskrit text, indeed, informs us that a holy sage in the north had five sons, each of whom founded a military kingdom beyond the Aryan territory. One of them conquered and gave his name to Kalinga. No evidence survives to fix the date of this expedition. Nor do the Buddhist settlements in Orissa, when first they come in sight, bear in any respect the character of a military occupation. The builders, or rather excavators, themselves have long passed beyond the reach of historical inquiry. But their rock habitations survive, and they were certainly not the abode of regal or warlike pomp. They form the earliest historical monuments in Orissa, and are found in many places among the mountains that divide the alluvial strip along the coast from the interior table-land. These caves and inscriptions are principally found in Purí District, especially in the Subdivision of Khurdhá. I reserve a detailed description of these relics of antiquity for my Statistical Account of Purí District, and confine myself to merely a brief mention of them here.

Two sandstone hills, Khandgirí and Udáyagirí, situated about midway on the road between Cuttack and Purí, are completely honeycombed with cells and temples cut out of the rock. The oldest of them consist of a single cell, scarcely larger than a dog-kennel. Several are shaped into strange distorted resemblances of animals. One has from time immemorial been known as the Snake Cave, another as the Elephant Cave, a third as the Tiger Cave. This last stands out from the rock in the form of a monstrous wild beast's jaw, with nose and eyes above, and the teeth overhanging the entrance to the cell. Others are more elaborate, and contain several chambers supported by pillars, and shaded from the sun by a verandah in front.

These sandstone hills in Orissa exhibit what are believed to be the very earliest memorials of Buddhistic life. The small single cells cut in the inaccessible precipices, utterly destitute of ornament, and crumbling from exposure to the air, represent the first human dwellings yet discovered in India. The most recent date which

appears to have been assigned to them is 200 B.C., according to Mr. Fergusson in his *History of Architecture* (vol. ii. p. 493). But a native antiquarian scholar (Bábu Rájendra Lálá Mitra) places even the more elaborate excavations, which evidently belong to a subsequent period, in the third century before Christ. The single-cell caves of Orissa are holes rather than habitations, and do not exhibit traces of even the most primitive carpentry architecture. Some of them are so old that the face of the rock has fallen down, and left the caves in ruins. Such cells, however, soon gave place to more comfortable excavations, shaded by pillared verandahs and lighted by several doors. These temples, in their turn, were succeeded by still more elaborate excavations. Of these, the most important is a two-storied monastery, known as the Ráni-núr, or Queen's Palace (*vide* Statistical Account of Puri District).

The sandstone caves, as a whole, represent ten centuries of human existence, say from 500 B.C. to 500 A.D. They form the relics of three distinct stages through which Buddhism passed from the period when its first missionaries started out on their perilous work, to the time when, full-blown and victorious, it had become the religion of kings and queens. The first was the Ascetic Age, represented by the single sandstone cells, scarcely larger than the lair of a wild beast, and almost as inaccessible. The second, or Ceremonial Age, has left its relics in the pillared temples. The third, or Fashionable Age of Buddhism, achieved its highest, although not its latest effort, in the two-storied Queen's Palace.

These great changes in the status of Buddhism represent long periods of time. Indian literature is silent with regard to the cave dwellers of Orissa, and gives us no clue to their origin or to the era of their first settlements. But the sacred books of Ceylon supply the defect, by a story which describes the arrival of the Sacred Tooth of Buddha in Orissa in 543 B.C. The Sanskrit name of the king would seem to indicate that the Orissa tribes had as early as this period been subjected to Aryan rule. The Ceylon legend relates that the Orissa king worshipped the sacred relic with much pomp, and that the Bráhmanical emperor in Northern India became converted to Buddhism by the miracles worked by the relic in his presence.

Orissa next emerges into history about three centuries later, or 250 B.C. A rocky eminence at Dhauli, on the bank of the Dayá river, is

covered with an inscription, long illegible to the Hindus, but which has at last been deciphered by European scholarship. It consists of eleven edicts promulgated by Asoka, the Buddhist Emperor of Northern India (*circ.* 250 B.C.), with two others apparently added by the local Prince of Orissa. The eleven are almost identical with similar inscriptions published throughout the length and breadth of India, and consist in an enunciation of the moral and religious code of Buddhism. The remaining two tablets are distinct from the general series of Asoka's edicts; they partake of a political character, and seem to lay down the local laws of the sovereign. The earliest discloses a despotic monarch who rules by his 'supreme will,' and proclaims the punishments awarded for murder and other offences. The other inscription is some hundreds of years later, and consists of a short biography of one of the kings of Kalinga, which, among other things, discloses that Kalinga was at that time a considerable emporium of trade, and that it had dealings with countries across the sea.

I now turn from the cave dwellings and inscriptions of the Buddhists, to the Bráhmanical archives of the Temple of Jagannáth. These curious relics consist of heaps of palm leaves, neatly cut and written over with a sharp iron pen, without ink. Their contents have been three times investigated. The most successful of these researches is that of Bábu Bhawání Charan Bandopádhyáya, who published an epitome of the palm-leaf writings in 1843. He entitles his work the *Purúshottama Chandriká arthát Srí Kshetradhámer Bibáran.* It furnishes a list of 107 kings of Orissa, and gives exact dates for their reigns, from 3101 B.C. down to the present day.

During the first three thousand years of which the palm-leaf records treat, or up to 57 B.C., twelve kings are said to have reigned in Orissa, averaging a little more than 250 years a-piece. The first three of them, who are well-known monarchs of the Mahábhárata, divided among them no fewer than 1294 years. At whatever period the Aryan settlement took place in Orissa, we may conclude that it did not start from Northern India, the seat of these kings, before 1807 B.C. The first king with any pretensions to being a local monarch—namely, Sankar Deva—has an assigned reign of from 1807 to 1407 B.C. It is only in the time of his successor, Gautáma Deva, however, or between 1407 and 1037 B.C., that we begin to catch any faintest glimpse of Orissa. During this reign, the Sanskrit colonists are said to have pushed their way down to

the Godávarí river; but it is not till the reign of the sixth monarch, Mahendra Deva, that we hear of the capital city, Rájmahendri, being founded. This brings us down to between 1037 and 822 B.C., and the foundation of the Aryan sea-coast kingdom of Kalinga may be placed within these two dates.

But in whatever century the Sanskrit-speaking race arrived, there can be no question regarding the route by which they travelled. The local legends point to the same conclusions as the inductions of European scholars, and prove that the Aryan colonists marched down the valley of the Ganges, and skirting round Bengal, reached Orissa, and through it the Madras coast. Between 822 B.C. and the Christian era, seven monarchs reigned over Orissa, but being merely local kings, they have only the meagre allowance of 125 years each.

The last five hundred years anterior to the Christian era were those in which Buddhism effected its settlements in Orissa. The Ceylon texts place the advent of the Sacred Tooth in Puri at 543 B.C. They probably antedate this event, however, as European researches now render it doubtful whether the first missionary efforts of Buddhism must not be placed half a century later. But it is a curious coincidence that the temple archives record an invasion from the north between the years 538 and 421 B.C., which is the very period to which the Ceylonese chroniclers assign the Buddhistic conquest of Orissa. The palm-leaf record calls the new arrivals Yavanas, a word which is sometimes translated as Mughuls and sometimes as Greeks. One thing is certain, these foreigners came from the north. The next three reigns up to 57 B.C. were disturbed by similar invasions; and as a matter of fact, the Buddhist texts of Ceylon and the Bráhmanical archives of Jagannáth alike declare that the five centuries before Christ were centuries of northern invasion and of great confusion in Orissa. Successive waves of colonists from the north allowed the country no rest. Until the third century after Christ, the new-comers seem either to have been driven back, or to have speedily amalgamated with the previous settlers. But between the years 319 and 323 A.D., in the reign of Sobhán Deva, the palm-leaf archives record a maritime invasion and conquest of Orissa by the Yavanas, under one Rakta-Bahu (Red-arm). The native prince fled to the jungle and died there. His titular successor was slain by the invaders, and the latter seem to have retained undisturbed possession of the country until

474 A.D. In my *Orissa*, I have gone at length into the question as to the identity of these Yavanas, a race which forms one of the greatest enigmas of Indian history. The general evidence points to the conclusion that they were Greeks or Græco-Bactrians.

The period of the Yavana inroads into Orissa is contemporary with the establishment of Buddhism in the Province. From the middle of the first century before Christ till 319 A.D., the palm-leaf writings yield no materials for the history of Orissa; but between 319 and 323 A.D. the last great inroad of Yavanas took place, and for 146 years their supremacy was complete. It seems probable that this long silence on the part of the Bráhmanical records is itself an indication that the intervening centuries had been a period of defeat and degradation to the Bráhmanical faith. It is certain that these centuries were the period during which the Buddhists honeycombed the mountains and excavated the rock monasteries of Orissa. It is also certain that the final expulsion of the Yavana dynasty from Orissa, in 474 A.D., was the signal for the restoration of the Bráhmanical faith under a line of orthodox monarchs.

THE SIVAITE DYNASTY.—The expulsion of the Yavanas from Orissa was effected by Yayáti Kesari, the founder of the Long-haired or Lion line, which ruled Orissa until 1132 A.D. The new dynasty was Bráhmanical rather than Buddhistic from the first; but no evidence exists of any great immediate change in the popular faith. Buddhist hermits still prayed among the rocks, and rich devotees continued to honeycomb the sandstone hills with fresh cave dwellings. But the creed was wearing itself out; and before the accession of the new dynasty, Buddha's Sacred Tooth had been removed from Purí to Ceylon. After a contest of 150 years, the struggle between Buddhism and Bráhmanism ended in the complete triumph of the latter. Guided by signs and wonders, the Bráhmanical founder of the Lion line sought out the image of Jagannáth in the jungles, where it had lain hidden during the Yavana occupation, and brought it back to Purí in triumph. He commenced the construction of the great Sivaite temple at Bhuvaneswar about 500 A.D.; two succeeding monarchs (Surjyá Kesari and Amanta Kesari) laboured on it; and the fourth of the house (Alabu Kesari or Lálat Indra Kesari) completed it in 657 A.D.

The earlier kings of the Lion line held their court sometimes at Bhuvaneswar, the City of Temples dedicated to Siva, in Purí District;

and sometimes at Jájpur, the priestly capital of the Province, situated on the right or south bank of the Baitaraní river, which separates Cuttack from Balasor. But a warlike prince, Nripa Kesari, who reigned from 941 to 953 A.D., perceived the military strength of the tongue of land where the Mahánadí first divides into its several branches, and founded the city of Cuttack, still the capital of Orissa. His successor, Makar or Markat Kesari (953–961 A.D.), shut out the river and protected the city from inundation by the construction of a masonry embankment several miles long, which exists to the present time, consisting of enormous blocks of hewn stone, in some places twenty-five feet high. The second monarch in descent from him, Madhav Kesari (971–989 A.D.), strengthened the new capital by building the fortress of Sarangarh on the southern bank of the river, and thus commanded the various channels into which the Mahánadí, the highway between the hills and plains, bifurcates. Half a century later, the reigning prince, Matsya Kesari (1034–1050 A.D.), built the massive bridge by which the pilgrims enter Purí at this day. A broad river then flowed beneath it, separating the sandy ridges of Jagannáth from the mainland, while an inner stream coursed through what is now the heart of the city. The bridge consists of masses of the red ferruginous stone known as laterite, the special peculiarities of which are its softness when first quarried, and the fact that it grows harder by exposure to the air. The bridge spans 290 feet of waterway by means of eighteen arches, the central one being eighteen feet high by fourteen feet broad, and the piers eight feet by six. The palm-leaf writings give a list of ten other unimportant monarchs of the Lion line, the only chronicled record of interest being the construction of the Nát Mandir, or Dancing Hall of the Sivaite Temple of Bhuvaneswar, by the queen of the sovereign who reigned from 1099 to 1104 A.D. The dynasty came to an end in the person of one Subarná Kesari, who died childless in 1132, and was succeeded by Chor-gangá, a king from the south, who, partly by war and partly by diplomacy, obtained the sovereignty of Orissa.

The Vishnuvite Dynasty.—The origin of the new dynasty remains a matter of dispute. The local legends point to the southern coast as the starting-point of the race; but evidence is not wanting to connect them with Bengal, and their family name, the Gangá-vansa, or Gangetic line, appears to support this view. The probabilities, however, are in favour of the former

theory. The first act of the new dynasty was to revolutionize the religion of Orissa. As the monarchs of the Province during the first seven centuries, before the accession of the Lion line, had been Buddhists, and as the Lion line during the next seven centuries had been Siva worshippers, so during the past seven centuries, from the coming in of the new dynasty in 1132 down to the present day, the reigning house have been Vishnuvites. In each case the revolution was a gradual one; and in each, the first evidence we have of the change manifests itself, not in any wholesale conversion of the people, but in an outburst of dynastic activity in building temples to the new gods. Buddhism, however, fought longer against Siva-worship in the fifth century, than the effete Siva-worship of the twelfth century against Vishnuvism. Two centuries and four generations of the Lion line passed away before they raised their great temple to the All-Destroyer at Bhuvaneswar. On the other hand, the new Vishnuvite dynasty had completed its shrine to Jagannáth in little more than half a century after its accession.

Hitherto, the external relations of Orissa have been with the south, but from the incoming of the Gangetic line, a connection becomes visible between it and the adjoining Province on the north. The founder of the dynasty, Chor-gangá, appears from an inscription to have carried his arms into the western Districts of Bengal, and to have sacked Vardhamána, identified as the important city of Bardwán on the East Indian Railway, between sixty and seventy miles from Calcutta. As already mentioned, his race bore a dynastic title strongly indicative of a family intercourse with the Gangetic valley. Indeed, his son and successor is called Gangeswar, the lord of the Ganges; and the palm-leaf records plainly assert that the territory of the latter king reached from the Godávarí right up to the Gangetic valley. This statement is also borne out by other evidence adduced by Mr. Stirling in his Account of Orissa, published in the *Asiatic Researches*, vol. xv. p. 270; and there can be little doubt that under the vigorous princes of the new dynasty in the twelfth century, the pre-historic monarchy of Kalinga was again gathered up into one kingdom, embracing the whole eastern coast of India, from the delta of the great river of Bengal to the delta of the great river of Madras.

Nor are the memorials which the early kings of the Gangetic line have left behind them unworthy of so vast a territory. Anang Bhim Deo, the fifth monarch of the dynasty, who reigned between 1175

and 1202 A.D., according to the palm-leaf records, was one of the greatest of the Orissa kings. He made a survey of his whole kingdom, measuring it with reeds; and also built the present temple of Jagannáth. A description of this edifice, and a brief sketch of the form of religion it represents, will be found in my Statistical Account of Purí District (vol. xix.). Grand as this temple is, it falls far short of the marvellous structure which was raised half a century later in honour of the sun, at Kanárak, on the shores of the Bay of Bengal, nineteen miles north-west of Purí. This temple (known as the Black Pagoda), or rather this fragment, for it was never completed, and is now in ruins, was raised by Languliyá Narsinh, the seventh monarch of the Gangetic dynasty, who reigned, according to the palm-leaf records, between 1237 and 1282 A.D. Sun-worship is closely connected with Vishnuvism, and it enters into many of the religious ceremonies of the Hindus at the present day. A description of the Sun Temple at Kanárak will also be found in my Statistical Account of Purí District (vol. xix.).

The history of the next three centuries, up to the close of the Gangetic dynasty in 1532, is taken up by a narrative of confused fighting, and of expeditions against the rebellious southern portion of the kingdom, towards the Godávarí, which had always given trouble to the Orissa monarch. One story, however, of this period is worth preserving. The king of Orissa, Purúshottama Deva, having heard of the beauty of the daughter of the Conjevaram prince, sent a rich embassy to ask her in marriage. But the Conjevaram monarch worshipped another god, and refused to marry his daughter to the Orissa king, on the ground of his holding the office of sweeper to Jagannáth. Purúshottama thereupon invaded the southern country, defeated the Conjevaram army, and carried off captive the princess, whom he swore should be married to a sweeper, in revenge for her father's refusal. The minister to whom he entrusted the execution of his order brought forth the princess at the next great festival of Jagannáth, at the time the king himself was publicly performing his lowly office before the god, and presented her in marriage to his master.

Under the son of this monarch, Pratáp Rudra Deva, who reigned 1504-1532 A.D., the fortunes of the Gangetic house culminated. This king has left architectural monuments at the two extremities of Orissa, his most important building being the Baráha Temple at Jájpur. The final extirpation of Buddhism from Orissa also belongs

to his reign. In his earlier years the king leaned towards the Buddhist creed; and the palm-leaf records relate the disputations and trials of magical skill, by which the Bráhmans at length converted him to their faith. This conversion is said to have been made by the great Vishnuvite reformer, Chaitanya, who visited Puri at this time. The death of King Prataáp Rudra Deva, in 1532, marks the end of the Gangetic line. Of the thirty-two sons whom he left behind him, two succeeded for a year a-piece to a throne which brought only a more conspicuous and more sudden death. The prime minister sooner or later murdered every male member of the family, and himself seized the kingdom in 1534 A.D. The Muhammadans, who, as will be explained in a subsequent paragraph, had long been oppressing Orissa, now closed in upon the usurper and his successors. After twenty-four years of confusion, the fierce Muhammadan general, Kálá Pahár, swept like a wave across the Province, throwing down the temples, smashing the idols, driving Jagannáth himself into hiding, and exterminating the last of the independent dynasties of Orissa.

Before entering, however, upon this stage of Orissa history, it may be well very briefly to exhibit the statistics and resources of the Province under the Lion and the Gangetic dynasties, who collectively held sway over Orissa for upwards of a thousand years.

Whatever may have been the extent of the mythical realm of Kalinga, which stretched down the coast from the Húglí to the Godávarí, Orissa under the Lion line (474-1132 A.D.) pretended to much more modest dimensions. It formed a strip of about 185 miles long by 60 broad, extending from the Kánsbáns river, a little to the south of Balasor town, to the Rasakuliá river in Ganjám, and inland from the sea to the Tributary State of Dhenkánal. This little kingdom of eleven thousand square miles included all the richest parts of the present Province, and yielded an annual revenue expressed in the palm-leaf records as fifteen *lákhs* of *márhas*, calculated to be equal to £406,250 sterling. The founder of the Vishnuvite or Gangetic dynasty, in 1132, added Orissa to his paternal southern domain, and also extended his arms northwards to Tamluk, and even as far as Bardwán, thereby restoring the limits of the pre-historic kingdom of Kalinga. He or his successors pushed their territory inland to Bod, which still continues the westermost of the Orissa Tributary States.

This kingdom, when at its largest, included three distinct tracts:—

(1) The central region, comprising the present Province of Orissa, 200 miles long by 120 broad, or a total area of 24,000 square miles. (2) The narrow strip, with the sea on one side and the mountains on the other, running south from the Chilká Lake to the Godávarí, 300 miles in length by an average of 40 in breadth, and an area of 12,000 square miles. (3) On the opposite or northern extremity, the kingdom extended to the Húglí; that is to say, it embraced the greater portion of the present District of Midnapur, a tract of 3500 square miles. This great kingdom yielded a nominal annual revenue of 3,500,000 *márhas* of gold, equivalent to £947,917; but the southern part of it, which stretched down the coast from Orissa Proper to the Godávarí, was a source of weakness rather than of strength. Practically, the revenue-paying parts of Orissa under the Gangetic dynasty reached, on one side, from the Húglí river to the Chilká Lake, and on the other, from the sea to the Tributary States; a compact territorial entity of 24,000 square miles. The Province continues the same size to this day, having lost about 3000 square miles on the north towards the Húglí, and gained about an equal extent on the west towards Central India. Besides the doubtful southern strip, the Gangetic monarchs added 12,000 square miles of unproductive hill territory to their kingdom; and when in the sixteenth century they sunk beneath the invading Musalmáns, the revenue remained about £435,000, derived from the 24,000 square miles of Orissa Proper, the southern strip having long since ceased to yield any income to the Orissa kings.

THE MUHAMMADAN CONQUEST.—I now turn to the Muhammadan period. At the beginning of the thirteenth century, Orissa first became conscious of that new power in the north, which was so soon to burst down upon the continent of India. In 1203 A.D. a valiant Afghán, Muhammad Bakhtiar Khiljí, led his tribe under the imperial banner into Bengal. The last Hindu king (Lakshman Sen) feebly yielded to the mountaineers of Central Asia, abandoned his capital of Nadiyá, and fled to the shrine of Jagannáth, where he closed his days as an ascetic. The conqueror, though able to carry his arms throughout Bengal, did not venture to follow the fugitive king into the dangerous Orissa delta. But nine years later (1218 A.D.) his third successor, Hisám-ud-dín Dáúd Ghiás-ud-dín, swept down upon the Province and forced it to pay tribute. This raid, for it could not be called a conquest, yielded no permanent results; and in 1243 the ruler of Bengal, now a fierce Tartar, Azá-ud-dín Toghán Khán,

marched upon Orissa. The excellent feudal organization of the Province, however, turned back the tide of invasion, and the persistent valour of the Uriyás drove the Muhammadans before them into the heart of Bengal. An attempt ten years later, to avenge the defeat by another invasion, also failed completely. The truth is, that the delta of the Mahánadí lay too far from the base of the Musalmán operations in Bengal to allow of any permanent conquest by the Muhammadans in that age. Three centuries of raids and hollow treaties and mutual wrongs elapsed (1200-1500 A.D.), before anything like a subjugation of Orissa by the Musalmáns took place.

During the fourteenth century, the political relations of Orissa seem to have been entirely with the southward. The narrow strip stretching down the Madras coast to the Godávarí river gave its nominal ruler endless trouble. In 1309 the prince had to seek the aid of the Musalmáns against his rebellious southern subjects. For the next hundred years the Orissa king is sometimes leagued with the Muhammadans against the Hindu princes of the southern strip, and sometimes with the Hindu princes against his former allies. By the middle of the fifteenth century, the Musalmáns had effected a permanent settlement in what is now the Madras Presidency, and ultimately, in 1564, the ancient Hindu principality south of Orissa fell into their hands.

For the greater part of the period occupied in this shifting strife, Orissa Proper had been free from invasion from the north. But the beginning of the sixteenth century brought with it a Muhammadan raid more serious than any which had preceded it. About 1510, Ismáil Ghází, the general of Husáin Sháh, King of Bengal, dashed down upon the Province, sacked the capital, Cuttack, and plundered the holy city, Puri, itself. The Orissa prince, who was engaged with his rebellious vassals in the south, hurried northwards, and the feudal organization of the Province was again sufficient to beat back the invaders. The final defeat of the Hindus took place half a century later. In 1567-68, the Afghán king of Bengal, Suláimán, advanced with a great army under his general, Kálá Pahár, into Orissa, and defeated the last independent king of Orissa, Rájá Mukund Deo, under the walls of Jájpur. The Hindu prince was slain in the battle. From this time the representatives of this line have been merely Rájás of Khurdhá, and the hereditary custodians of the temple and idol of Jagannáth. The Afghán conqueror, on the defeat and death of the Orissa king, was not content, like pre-

vious invaders, with levying a ransom from the Province, but marched through it to its southern extremity and besieged and captured Purí. On this occasion the peasant militia failed to withstand the strain of invasion; they scattered before the veteran Afgháns, who marched from temple to temple, throwing down the most august shrines, and smashing the idols. The wealth of Jagannáth, however, protected him from the hands of the iconoclast Musalmáns, who made a profit out of him by licensing his worship in the shape of a pilgrim tax, estimated by a native historian to have amounted to nine *lákhs* of *sikká* rupees, or £100,000 per annum. In the year following the conquest, the Afghán king took his departure from Orissa, leaving the government of the country in the hands of a deputy. No sooner was his back turned, however, than the Orissa feudal militia gathered its fragments together for another struggle, and revolted. The Bengal king immediately marched southwards with his Afghán veterans, and succeeded in restoring his supremacy; but he contented himself till the end of his reign in 1572-73 with a mild and distant sway.

His second son, Dáúd Khán, who succeeded to the governorship of Bengal, threw off all allegiance to the Mughul Emperor at Dehlí, and declared himself independent. In the struggle that ensued, the Afghán king was worsted and retired into Orissa. Early in 1574 a great battle took place at Mughulmárí, near Jaleswar in Balasor, between the Mughuls under Munim Khán and Rájá Todar Mall, and the Afgháns under Dáúd Khán, in which the latter were completely defeated. After the battle, Munim advanced upon Cuttack, where a peace was concluded, Dáúd renouncing all claim to Bengal and Behar, in return for which he received the Province of Orissa as a fief from the Mughul Emperor. Upon the death of Munim Khán, however, in the following year, Dáúd revolted and overran Bengal with his troops. The Afgháns were again defeated in 1576, Dáúd Khán was slain, and two years later, Orissa became a Province of Akbar's empire.

The Mughuls owed the annexation of Orissa to Akbár's famous Hindu general and prime minister, Rájá Todar Mall. No sooner had he left Orissa, however, than the Afghán remnant sallied forth from the hill retreats in which they had taken refuge, and in 1580 the Province again revolted against the Empire. Some years of confused fighting followed; and it was not till Akbar sent another Hindu general, Rájá Mán Sinh, against Orissa, that any sort of

settled government could be restored. Mán Sinh completely defeated the rebels in a great battle, captured all forts and strongholds, and finally re-annexed it to the rent-roll of the Empire in 1592. From that year the imperial commissions (*sanads*) appointing a Governor of the Lower Provinces, regularly include 'Bengal, Behar, and Orissa.' The Hindu element remained loyal amid the perfidy of the Afgháns; and the representative of the ancient native dynasty, with three of his family, were made grandees of the Dehli Court. Hereafter, the Orissa Afgháns, although they fired up from time to time, found themselves crushed between the Mughul Province of Bengal on the north, and the loyal Hindu dependency of Orissa on the south. In 1598 they took advantage of the Bengal Governor's absence to again rebel, but received so severe a punishment as to effectually quiet them for the next thirteen years. Another rising followed in 1611, which ended in their almost total extermination by the victorious Mughul general. This defeat virtually ended the struggle between the Afgháns and Mughuls, and Orissa remained simply a Province of the Mughul Empire until 1751, when the Marhattás obtained it. The remnants of the Afgháns still used it as a basis for maraudıng expeditions, one of which in 1695-98 attained the dignity of a revolt, and temporarily wrested Bengal and Orissa from the Empire.

Orissa, even after the extirpation of the Afgháns, still remained a source of weakness rather than of strength to the Empire. The politic governor who ruled Bengal from 1704 to 1725, Murshid Kulí Khán. in despair of being able to get in its revenues by civil administrators, made it over to soldiers of fortune, who collected the land tax at the spear point, and kept back as much of it as they dared from their distant master. As the latter strengthened his power, however, he sent his son-in-law to govern Orissa in 1706, and annexed the northern part of the Province (now Midnapur District) to Bengal. But he did not venture to subject it to the rigid revenue system which he enforced in the latter country, and Orissa seems to have been justly and leniently managed during his life. During the thirty years which succeeded his death, the internal troubles which beset the Mughul Government prevented anything like a settled government in Orissa; the peasantry were left at the mercy of a succession of rude soldiers, who harried the Province and got together as much plunder as their brief tenure of office allowed them. In 1742 the Marhattás came down upon Bengal, and found Orissa

an admirable basis for their annual inroads, exactly as the Afgháns had for their revolts. Nine years later, in 1751, the Governor of Bengal, Alí Vardí Khán, bought them off, by practically ceding to them the Province of Orissa, and agreeing to pay twelve *lákhs* of rupees as *chauth* for Bengal.

The treaty of 1751, which severed Orissa from the Mughul Empire, nominally preserved the dignity of the Emperor, and a Musalmán chief was appointed to govern in his name. But although the commissions (*sanads*) still bore the imperial seal, the imperial deputy collected the land tax with Marhattá troopers, and made over £40,000 (which was practically all the revenue he could collect) to the Marhattá prince. In a very short time this last pageant of dependence upon the Empire disappeared. The Muhammadan deputy of the Emperor was assassinated, and his successor speedily found himself unable to carry on the appearance of a government. The ancient feudal organization among the peasantry and native chiefs, although long since powerless for purposes of defence, still availed for harassing resistance. In 1755-56 the nominal deputy of the Mughul Emperor could not even wring the stipulated Marhattá tribute of £40,000 a year out of the Province, and begged to be released from his office. A few months later, a Marhattá obtained the undisguised governorship, and from that date till 1803 Orissa remained a Marhattá Province.

The Marhatta Rule.—But, wretched as the state of Orissa had been under the Mughuls, a half-century of deeper misery remained for it under the Marhattás. The memory of these fifty years haunted the whole population like a nightmare long after it had passed under British rule. One of our earliest Commissioners, Mr. Stirling, gathered together the oral and manuscript records of the period, and incorporated them in his excellent 'Account of Orissa,' published in vol. xv. of the *Asiatic Researches*. His opening sentence contains the argument of the whole:—'The administration of the Marhattás in this, as in every other part of their foreign conquests, was fatal to the welfare of the people and the prosperity of the country; and exhibits a picture of misrule, anarchy, weakness, rapacity, and violence combined, which makes one wonder how society can have kept together under so calamitous a tyranny.'

The Marhattá Prince had his capital or standing camp at Nágpur in Central India, and waged incessant war upon his neighbours. His deputies, who were constantly changed, and imprisoned on

their recall, struggled to wring out of Orissa—the only peaceful Province of his kingdom—a sufficiency to supply the military necessities of their master. Whoever had money was the natural enemy of the State. The ancient royal house was first plundered. The Marhattá deputy doubled the tribute at which the Musalmáns had confirmed him for ever in his estates. All the offices connected with raising the revenue were sold to the highest bidder at the Marhattá court at Nágpur. Every deputy who came to Orissa had ruined himself in order to buy his appointment, and he well knew that the time allowed him for rebuilding his fortunes would be but short. From the hereditary Orissa Prince he managed to wring about £130,000 a year; the smaller proprietors he ousted without mercy from their lands; and he laid heavy burdens upon the pilgrims of Jagannáth. By degrees these atrocities began to work their own cure. The peasant militia of Orissa, strong in the network of rivers, defied the Marhattá troops; and the collection of the revenue in the hilly frontier simply reduced itself to an annual campaign, 'in which,' says Mr. Stirling, 'to say nothing of the expenditure of blood and treasure, the Marhattás were nearly as often worsted as successful.'

I have carefully examined the records of the Marhattá period, but I can detect absolutely no trace of anything like a civil administration. The Marhattá cavalry harried the country at stated periods each year, and departed with the spoil. The village communes alone stand out above the stormy waste of waters, and their internal organization formed the only sort of civil government during the forty years which preceded our administration. Each village had its semi-hereditary, semi-elective head, who ruled the hamlet, and represented it to the Marhattá receiver. When the extortions of the latter passed all bounds, the village temporized till it could get its head-men out of his clutches, and then the whole community decamped with their cattle into the jungle. Fixed property did not exist, and the peasantry soon learned the impotence of cavalry amid the morasses and forests. The few landholders who had houses worth burning, belted them round with dense thickets of bamboos. A winding narrow passage afforded the sole means of approach, and these jungles formed secure fortifications against invaders who would only fight on horseback. Such greenwood defences exist to this day. In the course of a tour in the Tributary State of Athgarh, I was struck by the close overgrown site of the chieftain's fort; and an

old man explained to me that it was planted to keep off the Marhattá horse.

But though the swamps and forests yielded an asylum from the Marhattá spearmen, the peasantry could not fly from the consequences of their own flight. The Province lay untilled, and any failure of the rice crops produced a famine. Within seven years two terrible scarcities afflicted Orissa. The famine of 1770, a scarcity of much greater intensity than that of 1866, instead of being mitigated by State importations and relief depôts, was intensified by a mutiny of foreign troops. While the people were dying by hundreds of thousands on every road side, the Marhattá soldiery threw off the last vestige of control, and for many months ranged like wild beasts across the country. Seven years afterwards, 1777, another great famine ensued; and as the Marhattá power at Nágpur decayed, each party into which it split separately harried and plundered the Province.

An insight into the actual condition of the country may be gathered from the following extracts from the examination of a very aged Hindu, named Rám Dás, an ascetic who lives at the gate of the Puri temple, and who has been residing in the Province ever since the latter years of Marhattá rule. The story was taken down by the Collector of Puri in 1867, from the old man's lips, in the shape of question and answer; and I have been favoured with a copy of the examination. 'My name is Rám Dás. I am a native of Gujrát, and came to Puri four or five years before the Marhattás left it. The name of the Marhattá governor was Rághují; I have seen him. His real residence was in Cuttack, but he used to come occasionally to Puri when he wanted money. He usually rode in at the head of his troops—about 1500 fighting men, besides camp-followers, with a long train of elephants, horses, palanquins, and carts. When he came to Puri he lived in the old palace of the Rájás, and turned the Rájá out. His chief object in coming was to gather money. For this purpose he held *darbárs*, which he compelled all the great men in Puri to attend. I am not aware that he did anything at these *darbárs*, beyond making the great men pay him money. I never saw him distribute justice; but I have heard of his deciding cases of rich men against each other, by taking the side of him who gave him most money. I never heard of his deciding points at dispute among the poor. A poor man would as soon have thought of drinking

of one case in which one man murdered another, and the relations of the murdered man caught the murderer, and brought him before Rághují to get him punished. Rághují replied to them: "Why trouble me? If the man has murdered one of you, you can take his life yourselves, can't you, without troubling me?" There were no courts or jails in the country. Thieves and *dakáits* went everywhere, and Rághují's camp-followers lived by plunder. They had no pay, but bad men used to struggle to become a camp-follower of Rághují. To be one of his regular sepoys was to be a king. If an Uriyá caught a thief in his house at night, he used to brand him by burning, and then let him loose. Sometimes the villagers would rise and kill the thief outright. Civil disputes were settled among the people themselves by *panchâyats*.

'The Marhattás collected the land revenue in this way. An underling of the governor entered a village, called the people together, and ordered one man to give him so many *pans* or *káháns* of cowries, and another so many. If the people did not at once pay, they were first beaten with sticks, and if that would not do, they were afterwards tortured. A favourite mode of torture was, to thrust brass nail between the finger-nails and the flesh. Another was ti[illegible]*ní*. This consisted of throwing the man on the ground, placing [illegible]ossed bamboos over his chest, and gradually pressing on them ti[illegible] the man consented to pay what was demanded. If he still refused to pay, the operation was repeated on his stomach, back, legs, arms, etc. If the Marhattás saw a man was fat, they said that he had eaten plenty of *ghí*, and must be wealthy—so all people tried to keep lean. If they saw any one wearing clean clothes, they declared he could afford to pay—so all people went about in dirty clothes. If they saw a man with a door to his house, they said it was plain he had something—so people either did not keep doors, or hid them when the *amlá* were coming. Above all, if a man lived in a masonry (*pakká*) house, he was sure to be fleeced. The Marhattás held that a man who could build a *pakká* house could always afford them Rs. 100. They also had another test to find out whether a man had money. They got together the leaves which serve as plates, and on which is served the family repast, and poured water over them; if this did not cover every part of the leaves, they declared that they were greasy, and that the family were all *ghí*-eaters, and must be possessed of money. They used to enter houses, even the women's apartments, dig up the floors,

probe the walls, and sometimes pull them down altogether, in search of money.

'The Marhattás made no roads or embankments; they never thought of doing either. There were roads in those days, but not made ones. They were simply tracks across fields. The old pilgrim road to Jagannáth used to be *via* Jájpur and Kendrápárá. It was only a track, and in the rains used to be covered with water up to my loins for miles. The number of pilgrims to Jagannáth was much fewer in those days. The Marhattás used systematically to plunder all the rich pilgrims on the road. The poor pilgrims, too, were often plundered, and sometimes killed in the jungles by great bands of *dakáits*. Poor people, unless they were very pious, never thought of coming to Purí. When they did come, they always came in large bands for mutual protection. When rich men came, they travelled with a great company of soldiers, armed with swords, and spears, and matchlocks. At that time there was not a single *pakká* house in the whole town of Purí. Even the wealthiest *maths* were all of wattle and dab. All round the temple, where now there are hundreds of wealthy shops, then there was only one. The town had not half the houses it has now. Jungle grew in the str[illegible] In all the Province of Orissa there was only one weal[illegible], the father of the present Kendrápárá *zamíndár*.'

THE ENGLISH CONQUEST.—I now come to the period of the English conquest of Orissa, viz. 1803. For a hundred and fifty years previously, we had had factories at Balasor and Pippli; but these were mere commercial settlements, and simply comprised a small area surrounding the factories. An account of the establishment of these settlements will be found in my Statistical Account of Balasor District. The following sketch of the conquest of Orissa in 1803, and the subsequent principal historical events, is taken mainly from Mr. G. Toynbee's valuable work.

The conquest of Orissa by the English formed a part of the great campaign against the Marhattás in Central India, undertaken by the Marquis of Wellesley. The force destined for the expedition against Cuttack assembled at Ganjám, the northernmost of the Madras Districts, in September 1803. It was composed of the 1st Madras Fusiliers, a detachment of the King's 22d Regiment, the 20th Bengal Native Infantry, the Madras 9th and 19th Regiments of Native Infantry, and a small force of artillery, under the command of Colonel Harcourt. Mr. John Melvill, C.S., accom-

panied the expedition in the capacity of one of the 'Commissioners for settling the affairs of Cuttack,' Colonel Harcourt being the second Commissioner. The original plan of the campaign was that the force, after capturing Cuttack, and leaving a sufficient number of troops to hold it, should make its way by the Bármul Pass through the Tributary States, and co-operate with General Sir Arthur Wellesley in Berar. A detachment of 6216 Bengal troops was to join those from the South; of these, Mill in his *History of British India* (vol. iii. p. 651) states that 'a body of 854 were collected at Jellasor, to be ready to penetrate into Cuttack as soon as the movements of the principal force should render it necessary; 521 were to take possession of Balasor; and 1300 were to occupy a post at Midnapur, with a view to protect the detachments at Jellasor and Balasor, and to afford protection to the Company's frontier against any sudden incursion of the Marhattá horse.'

The main body of the expedition started from Ganjám on the 8th February 1803, and marched along the narrow strip of coast between the sea and the Chilká Lake. Manikpatná was reached on the 15th, having been abandoned by the enemy without resistance. It took two days to cross the dangerous channel through which the Chilká communicates with the sea; and had the enemy made a determined stand there, our position would have been one of considerable danger and difficulty. In consideration of the services rendered on this occasion by the Muhammadan *jágírdár* of Málud, the Commissioners granted him a *sanad*, entitling him and his heirs for ever to hold his lands free from assessment. A deputation of Bráhmans from the temple of Jagannáth waited on Colonel Harcourt on his march up the coast, and begged that their temple, the religious key to the Province, might be placed under the protection of the British. Leaving Narsinhpatná on the 18th, our forces entered Purí without opposition. After a halt of two days in the holy city, Colonel Harcourt told off a detachment of Hindu sepoys for the protection of the temple, and resumed his march. The Marhattás, who had gathered in a camp on the other side of the river which flows past the city. at first opened a sharp fire upon our troops, but soon broke and fled. We crossed the river, driving them out of the wood in which they had entrenched themselves. The real difficulties of the expedition now began. There were no roads; the cart tracks, which did duty as roads, were rendered almost impassable by water and mud, and it was with the

greatest difficulty that the guns and supplies could be dragged along. The enemy, though not daring to come to close quarters, threw out skirmishers and impeded the progress of our troops by every means which their superior knowledge of the country put in their power. A night attack on the Marhattá camp was made on the 2d October; the enemy were found leisurely eating their dinner, and driven out. The Marhattás then took up a position before a town called Mukundpur, near Pipplí. On the 4th October they attacked our advanced guard in vastly superior numbers, but were repulsed with considerable loss. They made good their retreat into the jungles of Khurdhá; and no further opposition was offered to the march of our troops, who reached the banks of the Kátjurí a few days after the action at Mukundpur.

The crossing of the river was effected safely; and on the 8th October Colonel Harcourt entered Cuttack city by way of the Lálbágh, quite unopposed, the gates being open and all the houses empty. The inhabitants had fled in alarm to Tánghí, ten miles north of the Mahánadí, and did not return until the proclamation issued by the Commissioners inspired them with confidence in the new rule. Their fears were probably aroused by the restrictions which it was deemed necessary to impose on their personal liberty, and which were not completely removed until November 1805. Had the inhabitants been hostile to our cause and attacked our rear, or fired on our troops from the houses as they marched through the town to storm the fort, the position would have been a critical one. Every precaution having been taken to guard against any such contingency, preparations for the storming of the fort were at once commenced. Six days sufficed to erect the batteries and make the approaches, and the fort was taken on the 14th October. The following account of the storm is taken from the historical records of the 1st Madras European Fusiliers, quoted by Mr. Toynbee:—'The fort, strongly built of stone and surrounded by a wet ditch, varying from 35 to 135 feet in breadth, had only one entrance; with a very narrow bridge leading over the ditch to it. The batteries were completed by the night of the 13th October, five hundred yards from the south face of the fort, and they commenced firing early the following morning. By 11 A.M. all the defences had been knocked to pieces, and the guns of the fort silenced. The storming party, consisting of a detachment from His Majesty's 22d Regiment and the Madras European Regiment, 400 sepoys from the 20th Bengal

Native Infantry, the 9th and 19th Madras Native Infantry, and some artillery, with a six-pounder to blow open the gate, advanced to the attack. The bridge was quickly passed, under a heavy fire from the fort, but it was nearly forty minutes before the wicket was blown sufficiently open to admit one man. The Europeans passed in singly, and with such rapidity, that, notwithstanding the resistance at the inner gates, they entered with the garrison, who after a very severe loss abandoned the fort.'

Equal success attended the expedition against the town of Balasor, which had been despatched from Bengal. The troops and stores were conveyed in vessels to within four miles of the town, where they were landed. The fort, which consisted only of a wall and the ruined English factory, of which the Marhattá *faujdár* had taken possession, was captured after a long contest, but with little loss on the part of the assailants.

The three principal towns of the Province having fallen into our hands, a part of the force was, in pursuance of the original plan of the campaign, despatched under Major Forbes to force the Bármul Pass. Colonel Harcourt with another detachment marched against Kujang, by way of Patámundái. The Rájá of Kujang had been detected carrying on a correspondence with the Rájás of Kaniká and Harishpur, with a view of entering into a triple alliance, offensive and defensive, against the British authority. The Rájá fled as soon as he received tidings of the near approach of the troops. His elder brother, whom he had kept a close prisoner, was released and placed on the throne, and a large reward was offered for the apprehension of the fugitive, who was captured shortly afterwards and confined in the fort at Cuttack. His fortifications were all dismantled, and the cannon found in them carried away to Cuttack. Before returning, Colonel Harcourt completed the success of his expedition by reducing to submission the turbulent Rájás of Kaniká and Harishpur. Their forts were also demolished, and the guns found in them taken away. In carrying out these measures no resistance was met with; and they were undertaken more with a view of impressing the people with a sense of the strength of the British arms, than from the necessity of putting down any serious armed opposition.

While these events were taking place on the eastern frontier of the Province, the detachment under Major Forbes had penetrated through the hilly and jungly country which bounds it on the west,

and reached the Pass of Bármul, the key to Berar and the Central Provinces. Here the Marhattás made a last stand; but on the 2d November the Pass was forced, and the enemy, completely broken and defeated, escaped with difficulty across the hills. The Rájás of Bod and Sónpur, in consequence of this defeat, came to render their submission to the British Government. Meanwhile, Colonel Harcourt was approaching from the east with the intention of effecting a junction with Major Forbes, and leading the combined force through the Pass to co-operate with Sir Arthur Wellesley in the Berars; but news having come that peace had been concluded both with Sindhiá and the Marhattá Rájá at Nágpur, the troops marched back to Cuttack, and the force was broken up early in 1804, the European regiments returning to Masulipatam.

Colonel Harcourt and Mr. Melvill, as Joint Commissioners, thereupon set about placing the civil administration of the Province on a satisfactory footing. Courts were established, a Land Settlement arranged for, and the Bengal Civil Regulations extended to the Province. The office of the 'Commissioners for settling the affairs of Cuttack' was abolished in 1805, and the Province placed under the charge of a Collector, and of a Judge and Magistrate. The headquarters of the Province, which then consisted of only one District, was at Puri until 1816, when it was removed to Cuttack. In 1829 the Division was split up into the three Regulation Districts of Cuttack, Balasor, and Puri, with the non-Regulation Tributary States. The only instances of armed opposition to British rule which have occurred since the conquest in 1803, are the rebellion of the Khurdhá Rájá in 1804, and the insurrection of the Khurdhá *páiks* in 1817-18. A narrative of these events will be found in my Statistical Account of Puri District, to which they more properly belong.

Revenue and Expenditure.—For 1829-30, the first year in which Cuttack District had an existence in its more circumscribed limits, as distinct from Puri or Balasor, the gross revenue is returned at £139,642, and the gross expenditure on civil administration at £114,438. In 1860-61, the gross revenue had increased to £202,867, and the disbursements to £193,882. In 1868-69, the gross revenue amounted to £272,688, and the expenditure to £268,791. In 1870-71, the gross revenue amounted to £243,958, and the expenditure to £223,659. After deducting all matters of transfer and deposit from the account, as explained in the

[*Sentence continued on page 209.*

BALANCE SHEET OF CUTTACK DISTRICT FOR THE YEAR 1870-71.

REVENUE.		EXPENDITURE.	
1. Land Revenue,	£77,629 10 0	1. Land Revenue,	£15 621 4 0
2. Excise,	12,045 0 0	2. Excise,	346 10 0
3. Customs,	429 6 0	3. Customs,	406 0 0
4. Salt,	7,382 0 0	4. Salt,	93 18 0
5. Assessed Taxes,	7,255 14 0	5. Assessed Taxes,	730 10 0
6. Stamps,	7,262 10 0	6. Administration and Public Departments,	316 10 0
7. Law and Justice,	1,809 4 0	7. Law and Justice,	9,566 0 0
8. Police,	146 0 0	8. Police,	14 589 2 0
9. Marine,	114 6 0	9. Marine,	2,354 6 0
10. Education,	561 0 0	10. Education,	4 282 0 0
11. Post Office,	1,247 14 9	11. Post Office,	2,550 18 0
12. Telegraph,	365 8 0	12. Telegraph,	1 885 2 0
13. Public Works,	7,263 0 0	13. Public Works,	126,303 18 0
14. *Kheddd* Fund,	325 0 0	14. Ecclesiastical,	59 6 0
15. Local Funds,	3,836 14 0	15. Medical,	1,182 10 0
16. Importation Fund,	116 2 0	16. Importation Fund,	87 14 0
17. Miscellaneous,	103 6 0	17. Pensions and Gratuities,	1,119 8 0
18. Revenue Deposits,	12,807 8 0	18. Interest,	133 18 0
19. Judicial Deposits,	19,139 16 0	19. *Kheddd*,	935 18 0
20. Bills and Transfer Receipts (Local),	19,387 6 0	20. Local Funds,	2,860 16 0
21. Bills of other Governments,	1,455 12 0	21. Miscellaneous,	50 14 0
22. Money Order Office,	24,307 2 0	22. Allowances and Assignments under Treaties, etc.,	659 18 0
23. Savings Bank,	472 18 0	23. Revenue Deposits,	3,532 2 0
24. Cash Remittance,	38,496 12 0	24. Judicial Deposits,	23 669 2 0
		25. Lapsed Deposits,	345 18 0
		26. Bills and Transfer Receipts (Local),	3,045 10 0
		27. Bills of other Governments,	962 16 0
		28. Money Order Office,	3,380 12 0
		29. Savings Bank,	65 0 0
		30. Refunds and Drawbacks,	642 12 0
		31. Cash Remittance,	1 850 0 0
Total,	£243,958 8 0	Total,	£223 658 12 0

Sentence continued from page 200.]
following paragraph, the *net* revenue for 1870-71 stands at £127,892, and the *net* civil expenditure (including the heavy item of 'Public Works') at £185,506. I have no details of the revenue and expenditure for earlier years, but the table on the preceding page exhibits the receipts and disbursements under each heading of revenue and expenditure for 1870-71. The cost of the military department, as represented by the regiment of Madras native infantry stationed at Cuttack, is not shown in this table.

I print the foregoing table as supplied to me by the Collector; but it contains many items on both sides of the account which are mere matters of deposit or account, and are not, in any way, items of District revenue and expenditure. To obtain the net revenue, items 18 to 24 inclusive must be deducted from the receipts; similarly, on the expenditure side, items 22 to 31 inclusive must also be omitted. If these deductions are made, the *net* revenue is reduced to £127,892, and the *net* civil expenditure (including Public Works) to £185,506. Of the net expenditure thus shown, however, no less than two-thirds, or £126,303, is taken up by Public Works, mainly in carrying out the system of canals and the irrigation distributaries connected with them. If this 'extraordinary' item be also omitted from the account, the *net* civil expenditure is brought down to £59,203, as against £127,892 of net income.

THE LAND REVENUE of Cuttack amounted to £81,896 in 1829-30, to £79,893 in 1850-51, to £78,421 in 1868-69, and to £84,781 in 1870-71. The District, however, included a larger area in 1829 than in the three last-mentioned years. As in every part of Orissa, the subdivision of estates has gone on rapidly under British rule, the number of estates having more than doubled within the last forty years, while the number of proprietors or coparceners has more than quadrupled. In 1829, Cuttack District contained 1509 estates, paying £81,896, held by 2118 registered proprietors or coparceners; the average land revenue paid annually by each estate amounting to £54, 5s. 6d., and by each separate proprietor to £38, 13s. 4d. In 1850 the number of estates had increased to 2351, paying £78,893, with 5110 proprietors and coparceners; whilst the average annual revenue paid by each estate fell to £33, 11s. 2d., and by each proprietor or coparcener to £15, 8s. 9d. In 1869 there were 3223 estates, paying £78,421, with 8511 proprietors; the average revenue paid by each estate being only

£24, 6s. 8d., and by each proprietor or coparcener, £9, 4s. 3d In 1870-71 the estates had increased to 3571, paying a total lan revenue of £84,781, with 9554 registered proprietors or coparceners while the average annual revenue paid by each estate had fallen t £23, 14s. 10d., and by each proprietor or coparcener to £8, 17s. 6d By an examination of details, the same result is exhibited in a stil more striking manner. In 1829 the average payment of eacl separate proprietor of a small estate paying under £10 a year o Government revenue was £2, 5s. 9d.; in 1850 it had fallen to £1 8s. od., and in 1869 to £1, 2s. od. In the second class of estates paying between £10 and £100 a year of Government rental, eacl proprietor paid on an average £22, 9s. 6d. in 1829; £12, 11s. od in 1850; and £9, 12s. od. in 1869. In the large estates, or thos paying a land revenue of upwards of £100 a year, the average pay ment of each individual proprietor was £222, 14s. od. in 1829 £122, 1s. od. in 1850; and £60, 4s. od. in 1869. I have no de tailed classification of the estates for 1870. In 1805, when the jurisdiction of Cuttack included also the greater part of Balasor and Puri, the land revenue of the Province amounted to £121,904, o only one-third more than that of the single District of Cuttack in 1870. This land revenue was paid by 2275 estates, held by 2517 proprietors or coparceners. At the present day, Cuttack District alone contains nearly double this number of estates, and quadruple the number of proprietors.

PROTECTION TO PERSON AND PROPERTY has increased in a still more rapid rate under British rule. In 1816 there were only four courts, revenue and judicial, in the whole District. In 1850 the number had increased to eleven; in 1860 to eighteen; and in 1870 to twenty-one. These courts are distributed over the District as follows:—Headquarters Subdivision, 12; Jájpur Subdivision, 3; Kendrápárá Subdivision, 4; and Jagatsinhpur Subdivision, 2. The number of covenanted officers in the District amounted to three in 1816, and to five in each of the years 1850, 1860, and 1870.

POLICE.—For police purposes, Cuttack District is divided into nine police circles or *thanás*, as follow:—(*a*) In the Headquarters Subdivision, (1) Cuttack and (2) Sálípur; (*b*) in Kendrápárá Subdivision, (3) Kendrápárá and (4) Patámundái; (*c*) in Jájpur Subdivision, (5) Jájpur, (6) Dharmsálá, and (7) Ulabar; (*d*) in Jagatsinhpur Subdivision, (8) Jagatsinhpur and (9) Jagannáthpur. The present police force consists of three distinct bodies; namely, the regular or

District police, a municipal police for the protection of the towns, and a village watch or rural constabulary. The total strength and cost of maintenance of each of these bodies is as follows :—

THE REGULAR POLICE consisted of the following strength at the end of 1872 :—2 European officers, viz. a District Superintendent and Assistant Superintendent, maintained at a total salary of Rs. 900 a month, or £1080 a year; 7 subordinate officers on a salary of upwards of Rs. 100 a month, or £120 a year, and 93 officers on less than Rs. 100 a month, or £120 a year, maintained at a total cost of Rs. 3155 a month, or £3786 a year, equal to an average of Rs. 31. 8. 9 a month, or £37, 17s. 1½d. a year, for each subordinate officer, together with 473 foot and 3 water constables, maintained at a total cost of Rs. 3174 a month, or £3808, 16s. od. a year, equal to an average pay of Rs. 6. 10. 8 a month, or £8 a year, for each man. The other expenses connected with the regular police were,—an average of Rs. 100 a month, or £120 a year, as travelling expenses for the District Superintendent and his Assistant; Rs. 173 a month, or £207, 12s. od. a year, for pay and travelling allowances of his office establishment; and an average of Rs. 1267. 4. 0 a month, or £1520, 14s. od. a year, for contingencies and all other expenses. The total cost of the regular police of Cuttack District in 1872 amounted to Rs. 8774. 4. 0 a month, or £10,529, 2s. od. for the year. Total strength of the force, 578 men of all ranks. The latest returned area of Cuttack District is 3858 square miles, and it contains a total population, as disclosed in the Census Report of 1872, of 1,494,784 souls. According to these figures, there is one policeman to every 6·67 square miles of the District area, and one to every 2586 of the population. The cost of maintaining the force amounted in 1872 to an average of Rs. 27. 4. 8 or £2, 14s. 7d. for each square mile of the District area, or to 1 *ánná* 1 *pie* or 1⅝d. per head of the District population.

THE MUNICIPAL POLICE is a force which consisted at the end of 1872 of 7 native officers and 110 men, maintained at a total cost of Rs. 757. 9. 0 a month, or a total for the year of £909, 6s. od. This force is for the protection of the three municipal towns of Cuttack, Jájpur, and Kendrápárá, which contain a total population of 72,313, and its cost is defrayed by means of rates levied upon the householders and shopkeepers carrying on business within municipal limits. The cost of the municipal police in 1872 amounted to an average of 2 *ánnás* or 3d. per head of the town population.

THE VILLAGE WATCH or rural police numbered 4744 in 1872, maintained either by the *zamíndárs* or by service lands held rent-free, at an estimated total cost, from both sources, of Rs. 85,226 or £8522, 12s. 0d. a year. As compared with the area and the population, there is one village watchman or *chaukídár* to every ·81 of a square mile of the District area, or one to every 315 of the population; maintained at an estimated cost of Rs. 22. 1. 6 or £2, 4s. 2¼d. per square mile of area, or ·10 *pie* or 1¼d. per head of the population. Each village watchman has charge of 54 houses on an average, and receives an average pay in money or lands of Rs. 1. 7. 5 a month, or £1, 15s. 1½d. a year.

Including, therefore, the regular District police, the municipal police, and the village watch, the machinery for protecting person and property in Cuttack District consisted at the end of 1872 of 5439 officers and men, equal to an average of one man to every ·58 of a square mile as compared with the District area, or one man to every 274 souls as compared with the population. The estimated aggregate cost of maintaining this force, both from Government and local sources, and including the value of the service lands held rent-free by the *chaukídárs*, amounted in 1872 to £19,961, equal to a charge of Rs. 51. 8. 4 or £5, 3s. 0½d. per square mile of the District area, or 2 *ánnás* 1 *pie* or 3⅛d. per head of the population.

CRIMINAL STATISTICS.—During the year 1872, 1453 'cognisable' cases were reported to the police, of which 386 were discovered to be false, and 32 were not inquired into under section 117 of the new Criminal Procedure Code. Convictions were obtained in 362 cases, or 34·97 per cent. of the 'true' cases, in which 1277 persons were tried, and 648, or 50·74 per cent., were convicted. Of 'non-cognisable' cases, 2211 were instituted, in which process issued against 2219 persons. The number of persons who actually appeared before the court was 1641, of whom 590, or 35·9 per cent., were discharged after appearance; 510, or 31·0 per cent., were acquitted by the Magistrate or the Sessions Court; 518, or 31·5 per cent., were convicted; and 23 remained under trial at the close of the year.

The following details of the number of cases and convictions, etc., for different crimes and offences in the year 1872, are taken from the Report of the Inspector-General of Police for that year. The 'cognisable' cases were as follow:—Class I. Offences against the State, public tranquillity, and justice—Offences relating to coin,

stamps, and Government notes, 4 cases, 2 persons tried, none convicted; harbouring an offender, 1 case, 2 persons tried, not convicted; other offences against public justice, 4 cases, 8 persons tried and 6 convicted; rioting or unlawful assembly, 25 cases, 85 persons tried and 34 convicted. Class II. Serious offences against the person—Murder, 5 cases, 9 persons tried and 2 convicted; attempt at murder, 1 case, 1 person tried but not convicted; culpable homicide, 5 cases, 4 persons tried but none convicted; rape, 3 cases, 1 person tried, but not convicted; exposure of infants or concealment of birth, 10 cases, 13 persons tried and 8 convicted; attempt at or abetment of suicide, 17 cases, 15 persons tried and 8 convicted; grievous hurt, 9 cases, 12 persons tried and 5 convicted; hurt by dangerous weapon, 6 cases, 5 persons tried and 1 convicted; kidnapping or abduction, 3 cases, 9 persons tried but none convicted; wrongful confinement and restraint, in secret or for purposes of extortion, 3 cases, 7 persons tried and 4 convicted; selling, letting, or unlawfully obtaining a woman for prostitution, 1 case, 3 persons tried and all convicted; using criminal force to a public servant or to a woman, or in an attempt to commit theft or wrongfully confine, 11 cases, 4 persons tried and 3 convicted; rash or negligent act causing death or grievous hurt, 2 cases, 2 persons tried and convicted. Class III. Serious offences against person and property, or against property only—*Dakáiti* or gang-robbery, 3 cases, 14 persons tried, but none convicted; robbery in the highway between sunset and sunrise, 2 cases, 3 persons tried, but none convicted; other robberies, 11 cases, 3 persons tried, but none convicted; serious mischief and cognate offences, 21 cases, 13 persons tried, but none convicted; lurking house trespass with intent to commit an offence, or after having made preparation for hurt, 108 cases, 58 persons tried and 37 convicted; house trespass with a view to commit an offence, or having made preparation for hurt, 2 cases, 1 person tried and convicted. Class IV. Minor offences against the person—Wrongful restraint and confinement, 55 cases, 37 persons tried, and 16 convicted. Class V. Minor offences against property—Lurking house trespass, 5 cases reported, but no person put on trial; cattle theft, 18 cases, 32 persons tried and 81 convicted; ordinary theft, 674 cases, 464 persons tried and 221 convicted; criminal breach of trust, 72 cases, 46 persons tried and 5 convicted; receiving stolen property, 21 cases, 35 persons tried and 21 convicted; criminal or house trespass, 179 cases, 165 per-

sons tried and 57 convicted. Class VI. Other offences not specified above—Vagrancy and bad character, 3 cases, 5 persons tried and 3 convicted; offences under the Gambling Act, 3 cases, 12 persons tried and 7 convicted; offences against the Salt and Customs Laws, 79 cases, 120 persons tried and 112 convicted; offences against the Excise Laws, 29 cases, 42 persons tried and 36 convicted; offences against the Stamp Act, 1 case, 1 person tried and convicted; public and local nuisances, 25 cases, 14 persons tried and 9 convicted; breach of Municipal Act, 28 cases, 28 persons tried and all convicted.

The number of cases instituted, and of persons tried and convicted, in 'non-cognisable' cases during 1872 is returned as follows:—Class I. Offences against the State, public tranquillity and justice—Offences against public justice, 61 cases, 107 persons tried and 63 convicted; offences by public servants, 10 cases, 18 persons tried and 2 convicted; false evidence, false complaints and claims, 40 cases, 45 persons tried and 18 convicted; forgery or fraudulently using forged documents, 2 cases, 8 persons tried and 4 convicted; offences relating to weighing and measuring, 4 cases, 7 persons tried and 6 convicted; rioting, unlawful assembly, or affray, 2 cases, 2 persons tried and convicted. Class II. Serious offences against the person—Causing miscarriage, 10 cases, 15 persons tried and 5 convicted. Class III. Serious offences against property—Extortion, 29 cases, 26 persons tried and 2 convicted. Class IV. Minor offences against the person—Hurt, 40 cases, 30 persons tried and 7 convicted; criminal force, 1333 cases, 456 persons tried and 211 convicted. Class V. Minor offences against property—Cheating, 60 cases, 17 persons tried and 7 convicted; criminal misappropriation of property, 28 cases, 18 persons tried and 9 convicted; criminal breach of trust by public servant, banker, etc., 1 case, 1 person tried and convicted; simple mischief, 188 cases, 76 persons tried and 28 convicted. Class VI. Other offences not specified above—Offences relating to marriage, 20 cases, 7 persons tried and 1 convicted; criminal breach of contract of service, 4 cases, 1 person tried and convicted; defamation, 52 cases, 17 persons tried and 12 convicted; intimidation and insult, 63 cases, 30 persons tried and 15 convicted; public and local nuisances, 17 cases, 12 persons tried and 8 convicted; offences under chapters xviii., xx., xxi., and xxii. of the Criminal Procedure Code, 76 cases, 24 persons tried and 19 convicted. Offences under the Police Act, 9 cases, 10 persons tried.

and 5 convicted; offences under the Excise Act, 4 cases, 5 persons tried and 3 convicted; offences under the Salt Act, 1 case, 7 persons tried, 7 convicted; offences under the Census Act, 1 case, 1 person tried and convicted; offences under the Pound Act, 125 cases, 33 persons tried and 17 convicted; offences under the Municipal Act, 1 case, 1 person tried and convicted; offences under the Ferry Act, 3 cases, 6 persons tried and 2 convicted; contempt and disobedience of orders, under section 163 of the Criminal Procedure Code, 5 cases, 7 persons tried, and all convicted; proceedings to compel payment of recognisance by accused, under section 219 of the Criminal Procedure Code, 7 cases, 10 persons tried and all convicted; proceedings to compel payment of recognisance by sureties under section 220 of the Criminal Procedure Code, 4 cases, 10 persons tried and 5 convicted; offences under Stamp Act, 1 case, 1 person tried and acquitted; offences under the Labour Transport Act, 3 cases, 3 persons tried and 1 convicted; offences under the Vagrancy Act, 1 case, 1 person tried and convicted; offences under the Post Office Act, 6 cases, 5 persons tried and 3 convicted; refusing to answer, under section 192 of the Criminal Procedure Code, 1 case, 1 person tried and convicted.

Excluding 386 'false' cases, and 32 which the police declined to take up, the total number of 'cognisable' and 'non-cognisable' cases investigated in Cuttack District in 1872 was 3246, in which 2328 persons were actually tried, and 1166 convicted either by the Magistrate or by the Sessions Court; proportion of persons convicted to persons tried, 50·08 per cent., or one person convicted of an offence of some kind or other to every 1282 of the District population.

The Commissioner of the Division thus describes the difficulties in the way of successful police work which exist in Orissa. I quote the paragraph from p. 160 of the Annual Report of the Inspector-General of Police for 1872:—'Apart from the number of false cases, which are numerous, there are special circumstances which render the work of the police more difficult than in Bengal. The solidity of the houses, built as they are with mud walls, renders it very unlikely that a thief should be overheard by the occupants of neighbouring houses when engaged in breaking his way into an unoccupied house, and the narrow alleys between the houses offer a safe hiding-place against a passing *chaukídár*. Another difficulty is the distribution of those who constitute the criminal classes. There are in almost

every village many residents who ordinarily live honestly, but in a very precarious manner, and are consequently ready to commit theft when opportunity offers. It is very easy for persons of this description to find an opportunity of taking a brass vessel or other article of small value, without leaving any trace to aid the police. In the next place, there is the constitution of the force itself, of which less than 80 out of nearly 600 are Uriyás. Whether this is owing to the natural indolence of the race, or to a disinclination to serve with the Muhammadans, Kshattriyas, and Rájputs, who form the majority of the force, is not very clear; but the result is to place the police at a very great disadvantage. Of the cases which have come under the Magistrate's own observation, he has noticed that very little is done in the way of detecting crime by the ordinary police. The injured parties and the *chaukídárs* do a great deal, and the rest is done by the personal energy and intelligence of a few of the superior officers. The immediate result of the inferiority of the constables and head constables is a loss of time in the first stage, which is often fatal to the success of the inquiry. Another difficulty with which the police have to contend is the stolid and unobservant character of the people, the range of whose ideas is extremely limited. Lastly, there is the inferiority of the oral evidence procurable in the great majority of cases, which not only causes prosecutions to break down in true cases, but also prevents the police from sending up cases in which the evidence rests upon the testimony of a few persons, who may be shown to be interested in the result. Most cases in which convictions are obtained rest upon circumstantial as well as direct evidence; and where the direct evidence is opposed to the evidence of circumstances, it generally happens that the former is unhesitatingly rejected, especially by the Appellate Courts.'

JAIL STATISTICS.—There are four prisons in Cuttack—namely, the District Jail at the Civil Station, and lock-ups at the Subdivisional towns of Jájpur, Kendrápárá, and Jagatsinhpur. The following statistics of the jail population of the District, for the years 1857-58, 1860-61, 1870, and 1872, are compiled from a return specially prepared for me by the Inspector-General of Jails. The figures for the first two named years must be regarded with caution, as being only approximately correct. Owing to defects in the original returns which cannot now be remedied, in some cases prisoners are counted twice over; prisoners transferred to the

District jail from the Subdivisional lock-ups being returned in both statements without any allowance being made for the transfer. Under-trial prisoners at the end of the previous year, who were subsequently convicted during the year to which the figures refer, are also returned under both heads. In 1870, however, an improved form of preparing the returns was introduced, and the statistics for that year and for 1872 may be looked upon as correct.

In 1857-58, the first year for which materials are available, the daily average number of prisoners in the Cuttack jail and lock-ups was 303; the total number of civil, criminal, and under-trial prisoners admitted during the year being 865. The discharges were as follow:—Transferred, 59; released, 666; died, 36; executed, 4—total, 765. In 1860-61 the jail returns show the daily average number of prisoners at 279; the total admission of prisoners of all classes during the year being 604. The discharges were—Transferred, 93; released, 518; escaped, 2; died, 18; executed, 2—total, 633. In 1870 the daily average jail population was 270; the total number of prisoners admitted during the year being 824. The discharges were—Transferred, 25; released, 810; escaped, 2; died, 30; executed, 2—total, 869. In 1872 the daily average number of prisoners was as follows:—Civil, 5·76; under-trial, 10·90; labouring convicts, 219·21; non-labouring convicts, 5·79—total, 241·66, of whom 31·11 were females. The total admissions during the year were 940. The discharges amounted to 710. The average daily jail population for 1872 was equal to one male prisoner to every 3445 of the male population, and one female prisoner to every 24,730 of the female population of the District.

In 1857-58 the proportion of prisoners admitted into hospital amounted to 152·94 per cent., and the deaths to 36, or 11·88 per cent. of the average prison population; in 1860 61 the admissions into hospital amounted to 130·82 per cent., and the deaths to 18, or 6·45 per cent. of the average prison population; in 1870 the admissions to the jail hospital amounted to 108·14 per cent., and the deaths to 30, or 11·11 per cent.; in 1872 the deaths fell to 10, or 4·15 per cent. of the average jail population, being 1·19 per cent. less than the average prison death-rate throughout Bengal. The Inspector-General of Jails, in his Report for 1872, makes the following remarks upon the sanitary condition and health of the jail:—"The health of the jail, as shown by the fifteen year tables, is certainly not good, for the death-rate reached 10·05 per cent.; but

from this we ought to deduct the years in which the *sequelæ* of the Orissa famine affected the mortality. It is well known that the distress led to the plundering of grain stores, and to organized *dakáitis* (previously unknown south of the Subarnarekhá), which many undertook with the express object of being sent to jail. The Orissa jails, of course, rapidly filled to a degree far beyond their capacity, and the accommodation intended for 500 prisoners was made to serve for 1990, the average number of prisoners during 1866. It is, therefore, not wonderful that the mortality should be excessive, reaching 31 per cent. in Cuttack; 26 per cent. in Puri; and 21½ per cent. in Balasor, where the congestion was early relieved by the formation of a jail camp. In that year 542 prisoners died in Orissa alone; and the effect by no means terminated with the year, as in 1867 the Cuttack jail was still crowded to more than twice its normal strength, and 10 per cent. of the prisoners died. Omitting those years, I find that the average death-rate for the years 1859-65 and 1868-72 was 6·02 per cent.; and omitting the deaths from cholera, principally due to a serious epidemic in 1870, the mortality was 4·77 per cent.,—certainly not an exceptionally high rate. In 1872 the rate was 4·15 per cent., or 1·19 per cent. below the Bengal average, and included 2 cholera cases and 4 deaths from bowel complaints. Cholera we may always expect, unless the jail be removed from the city; as it is, it stands in the very track of the Puri pilgrims. The sanitary arrangements are, in the Civil Surgeon's opinion, "in every way satisfactory, with the exception of the necessity for a properly detached quarantine ward."'

The average cost of maintenance per prisoner in the Cuttack jail and lock-ups, including rations, establishment, hospital charges, contingencies, and all other charges, except the prison police guard, is returned as follows:—In 1857-58 it amounted to Rs. 28. 9. 5 or £2, 17s. 2⅛d. per prisoner; in 1860-61, to Rs. 26. 13. 10 or £2, 13s. 8¾d.; and in 1870, to Rs. 47. 7. 0 or £4, 14s. 10½d. per prisoner. The cost of the jail police guard in 1870 amounted to an average of Rs. 12. 7. 0 or £1, 4s. 10½d. per prisoner, making a gross charge to Government of Rs. 59. 14. 0 or £5, 19s. 9d. per prisoner. The Inspector-General of Jails, in his Report for 1872, returns the total cost of the Cuttack jails and lock-ups, including police guard, at £1366, 12s. 9d. Excluding the cost of the police guard, which is included in the general police budget of the District, the cost of the jail amounted to £1017, 5s. 6d.

Prison manufactures have been carried on in Cuttack jail for a number of years, but owing to reasons explained below, these industries have not lessened the cost of the jail in any material degree. In 1857-58 the receipts arising from the sale of jail manufactures amounted to £186, 11s. 9½d., and the charges to £95, 7s. 10d., leaving an excess of receipts over charges, or a profit, of £91, 3s. 11½d.; average earning by each prisoner employed in manufactures, Rs. 13. 1. 11 or £1, 6s. 2¾d. In 1860-61 the receipts amounted to £471, 13s. 0¾d., and the charges to £293, 6s. 9¾d., leaving a profit of £178, 6s. 3d.; average earning by each prisoner employed in manufactures, Rs. 9. 10. 2 or 19s. 3¼d. In 1870 the total credits arising from jail manufactures amounted to £469, 11s. 7d., and the total debits to £432, 8s. 8d., leaving an excess of credits of £37, 2s. 11d.; average earning by each prisoner engaged in manufactures, Rs. 3. 3. 2 or 6s. 4¾d. In 1872 jail industries were conducted at an actual loss, the total credits during the year amounting to £456, 1s. 4d., and the debits to £610, 9s. 5d., leaving an excess of debits over credits, or loss, of £154, 8s. 1d. Excluding prisoners engaged on jail duties as warders, servants, etc., and the sick or aged, the average daily number of prisoners employed in manufactures in Cuttack District in 1872 amounted to 138·50, as follows:—Gunny weaving, 2·27; gardening, 15·48; manufacturing clothing, 33·91; bamboo, rattan, and reed work, 2·82; oil making, 2·38; string and twine making, 28·73; carpentry, 1·35; blanket weaving, ·43; paper making, 48·97; yarn and thread spinning, 2·16; total, 138·50. Regarding the results of the prisoners' labour, the Inspector-General writes as follows in his Report for 1872:—'The prisoners are incorrigibly lazy. Short-term men are almost entirely kept to penal labour, such as working the *dhenki* or rice pedal, and oil mills, and in polishing paper; the women work very badly. Cloth weaving and paper making are the principal industries; but long-term prisoners are generally removed, and no profit was made. By far the majority of the prisoners are cultivators, and a coarse-handed agricultural labourer necessarily spoils a good deal of material before he can learn a trade; and, as a rule, by the time he has acquired some skill, he is either released or transferred. There is no extra-mural work.'

Educational Statistics.—The following comparative table, compiled from the annual Reports of the Director of Public Instruc-

[*Sentence continued on page 215.*

Comparative Statistics of Government and Aided Schools in Cuttack District for the Years 1856–57, 1860–61, and 1870–71.

Classification of Schools.	Number of Schools.			Number of Pupils.											
				Hindus.			Muhammadans.			Others.			Total.		
	1856-57	1860-61	1870-71	1856-57	1860-61	1870-71	1856-57	1860-61	1870-71	1856-57	1860-61	1870-71	1856-57	1860-61	1870-71
Cuttack High School, . .	...	...	1	...	...	20	...	...	1	...	...	1	...	...	22
Government English School, .	1	1	1	89	149	151	13	20	13	11	9	5	113	178	169
Government Vernacular Schools, ...	2	10	8	32	294	398	23	21	9	...	...	2	55	315	409
Aided English Schools, . .	...	...	7	...	...	375	..	...	47	...	...	44	...	...	466
Aided Vernacular Schools, .	...	4	27	...	233	741	...	9	114	...	...	184	...	242	1039
Aided Girls' Schools, . .	...	...	3	...	...	...	...	...	...	...	...	510	...	...	510
Government Institutions for Special Education,[1] . .	...	...	3	...	...	136	...	...	4	...	...	...	...	...	140
Total, . . .	3	15	50	121	676	1821	36	50	188	11	9	746	168	735	2755

[1] These institutions consist of a law class attached to the High School, and two training schools for masters.

COMPARATIVE STATISTICS OF GOVERNMENT AND AIDED SCHOOLS IN CUTTACK DISTRICT FOR THE YEARS 1856–57, 1860–61, AND 1870–71—*continued.*

CLASSIFICATION OF SCHOOLS.	RECEIPTS.						EXPENDITURE.		
	From Government.			Amount realized by Fees, Subscriptions, and Private Contributions.					
	1856-57.	1860-61.	1870-71.	1856-57.	1860-61.	1870-71.	1856-57.	1860-61.	1870-71.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Cuttack High School, .	...	...	495 12 0	...	...	76 14 3	...	...	572 7 1
Government English School, . . .	281 13 2	363 9 3	574 9 11	130 16 6	188 5 0	309 16 7	444 14 7	551 15 9	884 6 6
Government Vernacular Schools, . . .	54 11 11	196 17 5	188 9 6	4 13 7	8 10 6	63 6 8	59 5 4	205 7 11	201 19 11
Aided English Schools,	...	...	220 17 3	..	...	402 8 4	...	..	585 0 6
Aided Vernacular Schools, . . .	...	40 4 4	249 19 2	..	70 13 1	212 1 6	...	108 15 7	463 10 5
Aided Girls' Schools, .	...	...	282 0 0	...	...	275 4 0	...	...	577 4 0
Government Institutions for Special Education, . . .	...	...	1231 15 9	...	...	82 19 3	...	...	1314 15 0
Total, . .	336 5 1	600 11 0	3243 3 7	135 9 7	267 8 7	1422 10 7	503 19 11	865 19 3	4599 3 5

Sentence continued from page 212.]
tion, exhibits the number of Government and aided schools in Cuttack District, together with the number and religion of the pupils attending them, the cost of education to Government, and the amount defrayed by fees or from private sources, for each of the years 1856-57, 1860-61, and 1870-71. It will be seen that the number of schools has increased from 3 in 1856-57 to 50 in 1870-71, and the number of pupils from 168 to 2755 in the same period. The Government grant in aid has risen from £336, 5s. 1d. in 1856-57 to £3243, 3s. 7d. in 1870-71, while the amount realized by fees or by private contributions has increased from £135, 9s. 7d. in 1856-57, to £1422, 10s. 7d. in 1870-71.

EDUCATIONAL STATISTICS FOR 1872-73.—Sir George Campbell's scheme of educational reform, by the extension of the grant-in-aid rules to large numbers of hitherto unaided village schools, came into operation in September 1872. It did not have such an immediate effect in Cuttack as in other Districts; but the Inspector of Schools in his Report for 1872-73 states that, in anticipation of receiving Government aid, numbers of primary schools were being reported to him in all directions. The following table, taken from the Educational Report for 1872-73, gives the statistics of the inspected schools, pupils, etc., for that year.—*See table on next page.*

That table, however, only exhibits the inspected schools. Besides these, there are a large number of indigenous village schools which furnish no returns to the Education Department. These village schools were estimated in 1871-72 to number 1931, attended by 14,751 pupils, the average daily attendance being set down at 10,000. Since that date a large number of these unaided schools have been brought under the new grant-in-aid system. By 31st March 1875, the total number of schools under inspection in Cuttack District had increased to 539, attended by 10,196 pupils. These figures show one school to every 5·9 square miles of the District area, and 6·8 pupils to every thousand of the population.

The following paragraphs, regarding the various classes of schools in Cuttack District, are quoted from the Report of the Education Department for 1872-73.

'THE CUTTACK HIGH SCHOOL.—This school includes three departments,—the College, the law school, and the *zilá* school. The students on the rolls on the 31st March were 14, 2, and 191 respectively.

[*Sentence continued on page* 217.

Educational Statistics of Cuttack District for 1872–73.

Classification of Schools.	Number of Schools.	Number of Pupils.	Average Monthly Attendance.	Receipts.				Expenditure.
				Government Grant.	School Fees.	Subscriptions.	Total Receipts.	
				£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
High School and Government English School,	1	205	148	932 10 0	382 16 0	...	1315 6 0	1264 14 0
Law Class attached to High School,	1	2	...	8 6 0	21 10 0	...	29 16 0	29 16 0
Aided Middle English Schools,	9	629	525	280 16 0	198 6 0	440 2 0	919 4 0	890 6 0
Government Middle Vernacular Schools,	4	159	150	78 8 0	48 2 0	2 4 0	128 14 0	87 2 0
Government Lower Vernacular School,[1]	1	41	31	...	3 2 0	...	3 2 0	...
Aided Middle Vernacular Schools,	6	202	158	72 0 0	20 12 0	63 6 0	155 18 0	159 14 0
Aided Primary Schools,	17	400	345	96 16 0	35 18 0	1 4 0	133 18 0	134 0 0
Unaided Primary Schools,	9	208	163	...	11 18 0	0 6 0	12 4 0	12 4 0
Normal School,	1	101	106	959 10 0	...	...	959 10 0	959 10 0
Aided Girls' Schools for Natives,	2	439	410	186 0 0	...	186 0 0	372 0 0	372 0 0
Aided Girls' Schools for Europeans,	1	33	25	84 16 0	18 16 0	45 10 0	149 2 0	150 10 0
Unaided Girls' Schools for Natives,	1	16	7	...	...	18 6 0	18 6 0	15 6 0
Total,	53	2435	2068	2699 2 0	741 0 0	756 18 0	4197 0 0	4075 2 0

[1] Attached to the Normal School.

The fees levied in the first two departments are Rs. 4 and Rs. 5 (8s. and 10s.) a month; those in the *zilá* school vary from R. 1 to Rs. 3 (2s. to 6s.). The College school is not so numerously attended as it should be, but this is to a great extent owing to the immediate proximity of the Anglo-Urdu aided school. At the last examination of the Calcutta University for the first Arts degree, five candidates appeared, only one of whom passed in the second division and obtained a scholarship. Two others passed in all other subjects except English, in which branch there appears to have been a general failure in all affiliated colleges and schools. In connection with the College classes, the Mahárájá of the Tributary State of Dhenkánal has founded three scholarships, tenable by Uriyá lads who have passed the matriculation examination of the Calcutta University; and since the expiration of the year, the District Committee have invested the Mayo Memorial Fund, amounting to about £1400, in Government securities, and have devoted the interest accruing therefrom to founding one scholarship of Rs. 30 (£3) and two of Rs. 20 (£2) per mensem, to be held by senior scholars of the Calcutta University to enable natives of Orissa to pursue their studies to the degrees of B.A. and M.A.' Regarding the scholarships, the Commissioner writes: 'This is a permanent foundation, the result of subscriptions raised by the Rájás and *zamíndárs* of Orissa, who had been assembled to meet the late Viceroy in Cuttack; on hearing of his death, they voluntarily raised this sum to perpetuate his memory. It will be a lasting and fruitful source of progress.'

'THE LAW CLASS is very poorly attended. In 1871-72 it was attended by 8 pupils only, and in 1872-73 the attendance appears to have been never more than 3. The law lecturer is now paid by fees, which in the year under report only amounted to £21, 10s. 0d. One student from this class obtained last year a certificate as Licentiate in Law at the B.L. examination; another passed the local examination of junior pleaders.

'THE ZILA SCHOOL is attended by 191 pupils, of whom 112 are Bengalís, 2 Beharís, 5 Eurasians, and 72 Uriyás. Of the Uriyás, 59 are Hindus, 4 Muhammadans, and 7 Christians. The majority of the Bengalí students belong to families who are permanently domiciled in Orissa, and are not mere temporary residents. The income of the school from fees was £307, 10s. 0d., as against £276, 8s. 0d. last year. The cost to Government of educating each pupil was Rs. 20. 14. 0 or £2, 1s. 9d., against Rs. 30 or £3

last year. This diminution is due to an increase in the number of pupils. The result of the University entrance examination was satisfactory, 6 candidates passing out of 7.

'MIDDLE-CLASS ENGLISH SCHOOLS.—There are nine aided schools—situated at Jájpur, Kendrápárá, Jagatsinhpur, Srikrishnapur, Korangsásan, and four in the town of Cuttack, namely, the Anglo-Urdu school,—so called because Urdu used to be taught,—the Cuttack mission school, the Roman Catholic school, and the school attached to the male Orphanage. The last is a lower-class school. During the past year there has been a great increase in the attendance at these schools. The Anglo-Urdu school has greatly improved since the appointment of a new head-master. The Roman Catholic school is a very numerously-attended institution; it is attended by both girls and boys. The Korangsásan school is badly situated; it is supported by Chaudharí Bishnunáth Dás; but there is no demand for English education in the vicinity. The cost of the education of each pupil in these middle-class English schools is Rs. 14. 6. 0 or £1, 8s. 9d. the cost to the State being Rs. 4. 8. 7 or 9s. 1d. They are attended by 322 Hindus, 46 Muhammadans, and 262 Christians.

'MIDDLE-CLASS VERNACULAR SCHOOLS.—There are four middle-class Government vernacular schools, and one lower-class Government school. The last is the model *páthsálá* attached to the Normal School of Cuttack, and is an excellent institution. Instruction is given in it by the pupil-teachers. The attendance was 41 This school did admirably at the last vernacular scholarship examination. The attendance in none of these schools is large. Besides the above, there were six aided vernacular schools, with an attendance of 202 pupils.

'PRIMARY SCHOOLS.—There was no addition to these schools last year; they were 17 in number, attended by 400 pupils. The trained teachers each receive Rs. 5 from Government. The cost of these schools to the State was £96, 4s. 0d.; £35, 14s. 0d. only was collected in fees. Of the students, 361 were Hindus, and 39 Muhammadans.

'GIRLS' SCHOOLS.—There has been a small falling off in these schools, owing to the marriage of many of the orphan girls taught in the mission schools. There is an unaided school managed by natives in the town of Cuttack, established last year (1871-72). The average attendance was 7 only; the cost of each pupil was Rs.

9. 9. 0 or 19s. 1½d. per mensem. In Cuttack, the promoters of female education have very much to contend with. 'It is probable, however, that the effects of the female education imparted in the mission schools may make themselves gradually felt throughout the country.' The Commissioner remarks that 'the girls turned out of the mission schools are eminently practical housewives as well as tolerable scholars. Their moral training has been unexceptionable.' 'Uriyá women are socially worse off than their sisters in Bengal and Upper India, and probably will remain so until the male population has been partially educated. The lower classes are more favourable to female education than the higher. The two native girls' schools contain 439 pupils, who cost Government about Rs. 4 or 8s. each. They are institutions which redound to the credit of the managers. There is also a girls' school, principally for European and Eurasian children. The Roman Catholic mission has also opened a girls' school, under the management of two nuns.'

'NORMAL SCHOOL.—This institution was first founded in 1869. It consists of two training departments for teachers of middle-class and primary schools, and two model schools for the benefit of the pupil-teachers. The institution is managed by nine masters. Admissions to it are made annually after an elementary examination. The pupil-teachers of the higher grade complete their course of training in three years; village *ábadháns* are trained in one year. In the *pandit* training department, there are 50 stipendiary pupils, receiving from Rs. 3 or 6s. to Rs. 5 or 10s. per month. Besides these, there are eight holders of vernacular scholarships studying in the school. The attendance is very good. The course of instruction in the third year consists of Uriyá literature and grammar, geography, history, mathematics, mensuration and surveying, writing, physics, art of teaching, and accounts. At last year's examination, out of 24 students, 22 received teachers' certificates. In the *guru* training department there are 43 pupils, 17 stipends being vacant. No examination for admission is now held; all admissions are made by order of the Magistrate. The course of instruction given in the school is the same as that prescribed for the primary scholarship examination. At the last examination, out of 49 candidates, 40 passed, and have obtained teachers' certificates. The boarding-house attached to the Normal School is in good repair, and is cleanly and neatly kept. It affords accommo-

dation to 24 pupils. The general health was good, except in October and November, when almost all the pupils suffered from dengue.'

POSTAL STATISTICS.—The following table, showing the number of letters, newspapers, etc., received at and despatched from the Cuttack post office for the years 1861-62, 1865-66, and 1870-71, together with the postal receipts and expenditure, is compiled from a return specially furnished by the Director-General of Post Offices :—

POSTAL STATISTICS OF CUTTACK DISTRICT FOR THE YEARS 1861-62, 1865-66, AND 1870-71.

	1861-62.		1865-66.		1870-71.[1]	
	Received.	Despatched.	Received.	Despatched.	Received.	Despatched.
Letters,	83,623	83,835	113,913	107,973	145,868	*Materials not received for this column.*
Newspapers,	11,737	2,943	17,729	4,181	17,992	
Parcels,	2,875	1,189	2,555	1,464	1,722	
Books,	1,357	220	1,696	389	3,644	
Total,	99,592	88,187	135,893	114,007	169,226	...
	£ s. d.		£ s. d.		£ s. d.	
Sale of Postage Stamps,	No Returns.		544 16 7½		565 6 1	
Cash Collections,	334 19 7½		442 13 10½		564 17 3¼	
Total Receipts,	...		987 10 6		1130 3 4½[2]	
Total Expenditure,	1813 8 6		2198 14 1½		2502 11 5	

ADMINISTRATIVE DIVISIONS. — For administrative purposes, Cuttack District is divided into the four following Subdivisions. The population statistics are taken from the Appendix Statements 1A and 1B to the Census Report of 1872. The administrative statistics are taken from the special report furnished by the Collector, and refer to the year 1870-71.

THE SADR OR HEADQUARTERS SUBDIVISION contains an area of

[1] The figures for the year 1870-71 represent the actuals for only six months, and an estimate for the remaining half of the year.

[2] Exclusive of £94, 14s. 7½d., receipts for sale of stamps for official correspondence. Official or service stamps were introduced in 1866.

675 square miles, with 1042 villages and townships, and 76,286 houses. Population—Hindus: males 176,321, and females 185,901; total 362,222, or 92·6 per cent. of the Subdivisional population; proportion of males in total Hindus, 48·7 per cent. Muhammadans: males 8532, and females 10,062; total 18,594, or 4·8 per cent. of the Subdivisional population: proportion of males in total Musalmáns, 45·9 per cent. Buddhists: males 7, and females 12; total 19. Christians: males 889, and females 1244; total 2133, or ·5 per cent. of the Subdivisional population: proportion of males in total Christians, 41·7 per cent. Other denominations not separately classified in the Census: males 4099, and females 4197; total 8296, or 2·1 per cent. of the Subdivisional population: proportion of males in total 'others,' 49·4 per cent. Population of all religions: males 189,848, and females 201,416; total 391,264: proportion of males in total population, 48·5 per cent. Average density of Subdivisional population, 579; average number of villages or townships per square mile, 1·54; average number of persons per village or township, 375; average number of houses per square mile, 113; average number of persons per house, 5·1. This Subdivision comprises the police circles (*thánás*) of Cuttack and Sálipur. It contained in 1870-71 nine magisterial and revenue courts, a regular police force of 225 officers and men, and a village watch or rural police of 1114 men. The total cost of the courts and of the regular and village police is returned by the Collector at £17,808, 6s. 0d.

The Kendrapara Subdivision, established on the 29th January 1859, contains an area of 617 square miles, with 932 villages or townships, and 49,314 houses. Population—Hindus: males 117,141, and females 123,836; total 240,977, or 97·9 per cent. of the Subdivisional population: proportion of males in total Hindus, 48·6 per cent. Muhammadans: males 2084, and females 2044; total 4128, or 1·7 per cent. of the Subdivisional population: proportion of males in total Musalmáns, 50·5 per cent. Christians: males 26, and females 10; total 36. Other denominations: males 485, and females 459; total 944, or ·4 per cent. of the Subdivisional population: proportion of males in total 'others,' 51·4 per cent. Population of all religions: males 119,736, and females 126,349; total 246,085: proportion of males in total population, 48·7 per cent. Average density of Subdivisional population, 398; average number of villages or townships per square mile, 1·51; average number of persons per village or township, 264; average number of houses per

square mile, 79; average number of persons per square mile, 4·9. This Subdivision comprises the police circles (*thánás*) of Kendrápárá and Patámundái. It contained in 1870-71 a magisterial and revenue court, a regular police force of 93 officers and men, and a village watch of 888 officers and men. The total cost of the court and of the regular and village police is returned by the Collector at £3670, 12s. 0d.

THE JAJPUR SUBDIVISION, established on the 29th January 1859, contains an area of 1134 square miles, with 2096 villages or townships, and 97,776 houses. Population—Hindus: males 237,384, and females 259,809; total 497,193, or 95·5 per cent. of the Subdivisional population: proportion of males in total Hindus, 47·7 per cent. Muhammadans: males 4948, and females 5380; total 10,328, or 2·0 per cent. of the Subdivisional population: proportion of males in total Musalmáns, 47·9 per cent. Christians: males 49, and females 46; total 95. Other denominations: males 6433, and females 6496; total 12,929, or 2·5 per cent. of the Subdivisional population: proportion of males in total 'others,' 49·7 per cent. Population of all religions: males 248,814, and females 271,731; total 520,545: proportion of males in total Subdivisional population, 47·8 per cent. Average density of Subdivisional population, 451; average number of villages or townships per square mile, 1·81; average number of persons per village or township, 248; average number of houses per square mile, 84; average number of persons per house, 5·3. This Subdivision comprises the police circles (*thánás*) of Jájpur, Dharmsálá, and Ulabár. It contained in 1870-71 a magisterial and revenue court, a regular police of 149 officers and men, and a village watch of 1466 men. The total cost of the court and of the regular and village police is returned by the Collector at £4357, 4s. 0d.

THE JAGATSINHPUR SUBDIVISION, established on the 20th March 1867, contains an area of 732 square miles, 1430 villages or townships, and 58,054 houses. Population—Hindus: males 163,666; and females 165,982; total 329,648, or 97·8 per cent. of the Subdivisional population: proportion of males in total Hindus, 49·6 per cent. Muhammadans: males 3165, and females 3798; total 6963, or 2·1 per cent. of the Subdivisional population: proportion of males in total Musalmáns, 45·4 per cent. Christians: males 34, and females 16; total 50. Other denominations: males 67, and females 162; total 229, or ·1 per cent. of the Subdivisional popula-

tion: proportion of males in total 'others,' 29·3 per cent. Population of all religions: males 166,932, and females 169,958; total 336,890; proportion of males in total Subdivisional population, 49·5 per cent. Average density of Subdivisional population, 460; average number of villages or townships per square mile, 1·95; average number of persons per village or township, 235; average number of houses per square mile, 79; average number of persons per house, 5·8. This Subdivision comprises the police circles (*thánás*) of Jagatsinhpur and Jagannáthpur. It contained in 1870-71 a court, a regular police force of 114 officers and men, and a village watch of 1276 officers and men. The total cost of the court and police is returned by the Collector at £6371, 12s. od.

Fiscal Divisions.—Cuttack District was divided into 86 Fiscal Divisions (*parganás*) in 1837, which, with three transferred from the District of Balasor in 1869, make a total of 89; including 4 hereditary estates called forts (*kilás*), regularly settled and surveyed, and 8 which have neither been measured nor settled. An estimate of their area, and proportion of cultivated to uncultivated lands, is shown in the subjoined list. The Fiscal Divisions are, generally speaking, larger than those of Balasor, but a few of them are even smaller, 4 being less than one square mile, 8 under three square miles, and 14 under five square miles in extent. The number of villages or rural communes was estimated at 6731 in 1839, and 6941 in 1870. By the Census of 1872, the total number of villages, *mauzás*, or townships was ascertained to be 5500, containing an average of 271 inhabitants each.

The following list exhibits the Fiscal Divisions of the District, showing the total area, with the proportion of land under cultivation, capable of cultivation, and uncultivable; the land revenue paid; and the names of the chief villages in each. Fractions of acres are not given. The materials are taken partly from the Settlement Records, and partly from the Board of Revenue's *parganá* Statistics:—

(1) Abartak: area, 8·46 square miles, or 5419 acres; 3196 acres cultivated; 69 cultivable; 2153 uncultivable; 13 estates; land revenue, £512, 4s. od.; chief villages, Saátrápur and Jayapur.

(2) Ahivas: lately transferred from Balasor; area, 35·88 square miles, or 22,265 acres; no details; 132 estates; land revenue, £1370, 6s. od.

(3) Alti: area, 76·97 square miles, or 49,259 acres; 24,163

acres cultivated; 2071 cultivable; 23,023 uncultivable; 40 estates; land revenue, £2674, 10s. od.; chief villages, Káyamá and Barambardá.

(4) ANABARTAK: area, 3·86 square miles, or 2471 acres; 1147 acres cultivated; 133 cultivable; 1190 uncultivable; 3 estates; land revenue, £87, 6s. od.; chief village, Pathuriyá.

(5) APILA: area, 4·98 square miles, or 3189 acres; 2134 acres cultivated; 79 cultivable; 974 uncultivable; land revenue, £195, 10s. od.; chief village, Singársáhí.

(6) ASURESWAR: area, 65·17 square miles, or 41,712 acres; 30,806 cultivated; 1721 cultivable; 9185 uncultivable; 78 estates; land revenue, £3087, 10s. od.; chief villages, Málipur and Barkhir.

(7) ATKHANTA: area, 5·60 square miles, or 3590 acres; 2323 acres cultivated; 405 cultivable; 861 uncultivable; 3 estates; land revenue, £146, 10s. od.; chief villages, Orto and Aetpur.

(8) AUL KILA (unmeasured and settled portion of): area, 131·10 square miles, or 84,129 acres; 54,000 acres cultivated; none cultivable; 30,129 uncultivable; 2 estates; land revenue, £2813, 18s. od.; chief villages, Garh Aul and Derábisi.

(8½) AUL KILA (measured and settled portion of): area, 1·8 square miles, or 690 acres; 571 acres cultivated; 15 cultivable; 103 uncultivable; 1 estate; land revenue, £55, 8s. od.

(9) BAHURUPA: area, 170 square miles, or 1086 acres; 469 acres cultivated; 56 cultivable; 561 uncultivable; 1 estate; land revenue, £53, 10s. od.; chief villages, Bidhárpur and Atgarh.

(10) BAKRABAD: area, 52·86 square miles, or 33,831 acres; 13,223 acres cultivated; 1515 cultivable; 19,092 uncultivable; 125 estates; land revenue, £1419, 4s. od; chief villages, Bisnabár and Barhampur.

(11) BALUBISI: area, 58·30 square miles, or 37,311 acres; 22,113 acres cultivated; 1198 cultivable; 13,999 uncultivable; 157 estates; land revenue, £2965, 18s. od.; chief villages, Muhammadpur and Raghunáthpur.

(12) BARAN: area, 26·95 square miles, or 17,251 acres; 8223 acres cultivated; 1683 cultivable; 7344 uncultivable; 32 estates; land revenue, £485; population, 3289; chief villages, Hátsáhí and Deultárá.

(13) BARDIYALA: area, 6·71 square miles, or 4207 acres; 1498 acres cultivated; 89 cultivable; 2709 uncultivable; 2 estates; land revenue, £128, 4s. od.; chief villages, Syámprasád and Tárásáhí.

(14) BARGAON: area, 15·97 square miles, or 10,220 acres; 4752 acres cultivated; 625 cultivable; 4842 uncultivable; 4 estates; land revenue, £517, 8s. od.; chief village, Ratnagir.

(15) BARPALLA. area, 9·74 square miles, or 6233 acres; 4208 acres cultivated; 334 cultivable, 1691 uncultivable; 17 estates; land revenue, £303, 2s. od.; chief villages, Pangpál and Janpál.

(16) BARUYA: area, 46·89 square miles, or 30,007 acres; 18,388 acres cultivated; 2892 cultivable; 8727 uncultivable; 89 estates; land revenue, £2235, 8s. od.; chief villages, Haripur and Báliyápál.

(17) BAUTARA · recently transferred to Balasor.

(18) BENAHAR: area, 46·43 square miles, or 29,717 acres; 19,288 acres cultivated; 673 cultivable; 9756 uncultivable; 64 estates; land revenue, £1486, 10s. od.; chief villages, Bálikudá and Khámbákul.

(19) BISHNUPUR KILA; area, 17·51 square miles, or 11,208 acres; 5000 acres cultivated; 6208 uncultivable; 1 estate; land revenue, £185, 12s. od.; chief villages, Panchpallí and Gaursáhí.

(20) CUTTACK HAVILI: area, 11·97 square miles, or 7666 acres; 1422 acres cultivated; 178 cultivable; 6066 uncultivable; 11 estates; land revenue, £159, 2s. od.; chief town, Cuttack.

(21) CHAURDA KOLAT; area, 12·98 square miles, or 8310 acres: 4977 acres cultivated; 749 cultivable; 2583 uncultivable; 5 estates; land revenue, £625, 10s. od.; chief villages, Kespur and Gobind-prasád.

(22) CHHEDRA KILA: total area, 8·37 square miles, or 5357 acres; 3301 acres cultivated; 2056 uncultivable; 1 estate; land revenue, £227, 14s. od.: chief villages, Barang and Gunpur.

(23) CHHEDRA KADALIBARI: area, ·4 of a square mile, or 26 acres; 8 acres cultivated; 17 cultivable; 1 uncultivable; 2 estates; land revenue, £2, 14s. od.; population included with that of Chhedrá Kila.

(24) DALIJORA: area, 97·22 square miles, or 62,220 acres; 7863 acres cultivated; 648 cultivable; 53,709 uncultivable; 11 estates; land revenue, £898, 2s. od.; chief villages, Agráhát and Bhagatpur.

(25) DAMARPUR: area, 17·30 square miles, or 11,078 acres; 7078 acres cultivated; 114 cultivable; 3885 uncultivable; 9 estates; land revenue, £761, 10s. od.; chief villages, Dámarpur and Dhumát.

(26) DARPAN KILA: area, 100·92 square miles, or 64,580 acres; 25,983 acres cultivated; 1039 cultivable; 35,234 uncultivable;

8 estates; land revenue, £731, 2s. od.; chief villages, Dharmasálá and Chhatiyá.

(27) DEOGAON: area, 49·73 square miles, or 31,831 acres; 17,027 acres cultivated; 2107 cultivable; 12,697 uncultivable; 59 estates; land revenue, £1722, 14s. od.; chief villages, Neyáli and Kasardá.

(28) DERABISI: area, 0·7 square miles, or 46 acres; 37 acres cultivated; 9 cultivable; 3 estates; land revenue, £3, 18s. od.

(29) DIHI ARAKPUR: area, 6·2 square miles, or 3852 acres; 2269 acres cultivated; 212 cultivable; 1371 uncultivable; 2 estates; land revenue, £362, 6s. od.; chief villages, Arakpur and Padmalábhpur.

(30) DOLGRAM: recently transferred from Balasor District; area, 43·99 square miles, or 28,155 acres; no details; 93 estates; land revenue, £1280.

(31) DOMPARA KILA: area, 88·37 square miles, or 56,558 acres; 6671 acres cultivated; 574 cultivable; 49,313 uncultivable; 1 estate; land revenue, £133, 6s. od.; chief villages, Tálbast and Pátpur.

(32) GANDITO; area, 13·90 square miles, or 8892 acres; 6404 acres cultivated; 337 cultivable; 2150 uncultivable; 88 estates; land revenue, £558; chief villages, Kantáballabhpur and Pákanpur.

(33) HARIHARPUR: area, 61·59 square miles, or 39,421 acres; 28,107 acres cultivated; 893 cultivable; 10,421 uncultivable; 161 estates; land revenue, £2495, 14s. od.; chief villages, Jagatsinhpur and Nabapatná.

(34) HARISHPUR KILA: area, 59·96 square miles, or 38,377 acres; 6478 acres cultivated; 1995 cultivable; 29,904 uncultivable; 1 estate; land revenue, £633, 10s. od.; chief villages, Gorá and Borkiná.

(35) HATIMUNDA: area, 16·28 square miles, or 10,417 acres; 5693 acres cultivated; 769 cultivable; 3954 uncultivable; 23 estates; land revenue, £546, 8s. od.; chief villages, Govindpur and Dadhibámanpur.

(36) JAJPUR: area, 86·63 square miles, or 55,446 acres; 38,201 acres cultivated; 1376 cultivable; 15,868 uncultivable; 304 estates; land revenue, £3225, 4s. od.; chief villages, Jájpur and Siddheswar.

(37) JAVANABAD: area, 8·14 square miles, or 5208 acres; 4577 acres cultivated; 39 cultivable; 591 uncultivable; 1 estate; land revenue, £271, 8s. od.

(38) JAYPUR: area, 20·11 square miles, or 12,871 acres; 8743

acres cultivated; 967 cultivable; 3161 uncultivable; 31 estates; land revenue, £964, 10s. od.; chief villages, Khandihát and Koliatá.

(39) JHANKAR: area, 54·83 square miles, or 35,092 acres; 21,483 acres cultivated; 751 cultivable; 12,858 uncultivable; 19 estates; land revenue, £2756, 14s. od.; chief villages, Kanpur and Birtol.

(40) JODH: area, 15·55 square miles, or 9952 acres; 6148 acres cultivated; 931 cultivable; 2872 uncultivable; 20 estates; land revenue, £617, 10s. od.; chief villages, Bánsáhí and Katrápur.

(41) KALAMATIYA: area, 43·80 square miles, or 28,028 acres; 15,571 acres cultivated; 151 cultivable; 12,305 uncultivable; 51 estates; land revenue, £1315, 8s. od.; chief villages, Barí and Náráyanpur.

(42) KALKALA KILA: area, 17·56 square miles, or 11,238 acres; 6000 acres cultivated; 5238 uncultivable; 1 estate; land revenue, £13, 2s. od.; chief village, Kalkalá.

(43) KANCHIKHAND: area, 4·73 square miles, or 3026 acres; 1565 acres cultivated; 83 cultivable; 1377 uncultivable; 2 estates; land revenue, £170, 18s. od.; chief villages, Rájkaná and Barcháncho.

(44) KANIKA KILA: area, 577·60 square miles, or 369,661 acres; 91,645 acres cultivated; 35,917 cultivable; 242,098 uncultivable; the Board of Revenue's *parganá* list, however, returns the area of the *kilá* at 478·67 square miles, or 306,354 acres; 4 estates; land revenue, £2040, 16s. od.; chief villages, Ganjá and Mato.

(45) KARIMUL: area, 28·90 square miles, or 17,980 acres; 7416 acres cultivated; 878 cultivable; 9686 uncultivable; 39 estates; land revenue, £871, 18s. od.; chief villages, Púbkachh and Bhátpárá.

(46) KATE: area, 66·88 square miles, or 42,804 acres; 22,395 acres cultivated; 1195 cultivable; 19,214 uncultivable; 48 estates; land revenue, £1741, 10s. od.; chief villages, Mádhab and Gajrájpur.

(47) KATIYA: lately transferred from Balasor; area, 26·77 square miles, or 17,132 acres; no details; 105 estates; land revenue, £1000, 4s. od.

(48) KAYAMA: lately transferred to Balasor.

(49) KERUVALKHAND: area, 9·83 square miles, or 6290 acres; 3149 acres cultivated; 184 cultivable; 2957 uncultivable; 19

estates; land revenue, £535, 4s. od.; chief villages, Kukudang and Jasrájpur.

(50) KHANDI: area, 29·55 square miles, or 18,910 acres; 14,433 acres cultivated; 75 cultivable; 4401 uncultivable; 56 estates; land revenue, £1711, 14s. od.; chief villages, Tulang and Dengá.

(51) KODINDA: lately transferred to Balasor.

(52) KOKUYAKHAND: area, 29·28 square miles, or 18,739 acres; 12,195 acres cultivated; 526 cultivable; 6017 uncultivable; 80 estates; land revenue, £1309, 14s. od.; chief villages, Tángi and Hariantá.

(53) KUHUNDA: area, 1·18 square miles, or 754 acres; 524 acres cultivated; 67 cultivable; 162 uncultivable; 3 estates; land revenue, £49, 2s. od.; chief village, Kuhundá.

(54) KUJANG KILA: area, 358·74 square miles, or 229,366 acres; 100,000 acres cultivated; 129,366 uncultivated; 2 estates; land revenue, £750, 8s. od.; chief villages, Tikhirí and Párádwíp.

(55) KURNIYA: area, 7·25 square miles, or 4642 acres; 3343 acres cultivated; 51 acres cultivable; 1247 uncultivable; 10 estates; land revenue, £267, 6s. od.; chief villages, Chanyarpur and Ichhápur.

(56) KUSMANDAL: area, 8·11 square miles, or 5190 acres; 3549 acres cultivated; 252 cultivable; 1389 uncultivable; 4 estates; land revenue, £550, 6s. od.; chief villages, Barhampur and Jháreswar.

(57) KUTABSHAHI: area, 0·42 of a square mile, or 266 acres; 212 acres cultivated; 6 cultivable; 47 uncultivable; 1 estate; land revenue, £13, 4s. od.

(58) MADHUPUR KILA: area, 60·58 square miles, or 38,773 acres; 15,000 acres cultivated; 23,773 uncultivable; 1 estate; land revenue, £617, 10s. od.; chief villages, Madhupur and Singápur.

(59) MANJURI: area, 10·70 square miles, or 6846 acres; 4767 acres cultivated; 183 cultivable; 2189 uncultivable; 24 estates; land revenue, £333, 14s. od.; chief village, Mahámániyá.

(60) MATKADABAD: recently transferred to Balasor.

(61) MATKADNAGAR: recently transferred to Balasor.

(62) MUTRI: area, 14·32 square miles, or 9165 acres; 836 acres cultivated; 65 cultivable; 8263 uncultivable; 1 estate; land revenue, £110, 2s. od.; chief village, Naráj.

(63) NEULBISI: area, 3·94 square miles, or 2519 acres; 1603

acres cultivated; 365 cultivable; 551 uncultivable; 3 estates; land revenue, £119, 4s. od.; chief villages, Bodhang and Nayápárá.

(64) NAHAKHAND: area, 16·49 square miles, or 10,[illegible]55 acres; 7436 acres cultivated; 582 cultivable; 2536 uncultivable; [illegible] estates; land revenue, £870, 16s. od.; chief villages, Bharatpur and Bágurá.

(65) OLASH: area, 39·8 square miles, or 25,012 acres; 14,816 acres cultivated; 1476 cultivable; 8720 uncultivable; 134 estates; land revenue, £1465, 12s. od.; chief villages, Rasulpur and Rájendrapur.

(66) PADAMPUR: area, 25·94 square miles, or 16,600 acres; 9593 acres cultivated; 355 cultivable; 6652 uncultivable; 42 estates; land revenue, £1258, 12s. od.; chief villages, Págáhát and Mahásinhpur.

(67) PAENA: area, 9·39 square miles, or 6010 acres; 3308 acres cultivated; 255 cultivable; 2447 uncultivable; 7 estates; land revenue, £419, 12s. od.; chief villages, Páilo and Rágpur.

(68) PAENDA: area, 41·56 square miles, or 26,610 acres; 13,368 acres cultivated; 1393 cultivable; 11,301 uncultivable; 44 estates; land revenue, £1313, 8s. od.; chief villages, Paharájpur and Krishnanagar.

(69) PANIKHAND: area, 1·82 square miles, or 1162 acres; 514 acres cultivated; 263 cultivable; 384 uncultivable; 1 estate; land revenue, £63, 16s. od.; chief village, Kakhar.

(70) PATIYA KILA: area, 42·21 square miles, or 27,013 acres; 10,000 acres cultivated; 17,013 uncultivable; land revenue, *nil*, the estate being held revenue-free or *lákhiráj*; chief villages, Raghunáthpur and Garh Patiyá.

(71) PATU MAHANADI: area, 0·1 of a square mile, or 8 acres; all cultivated; [illegible] revenue, 5s.

(72) SAHIBNAGAR: recently transferred to Balasor.

(73) SAIBIR: area, 31·82 square miles, or 20,362 acres; 11,468 acres cultivated; 1864 cultivable; 7030 uncultivable; 3 estates; land revenue, £1713, 10s. od.; chief villages, Puran and Madhusudanpur.

(74) SAILO: area, 39·16 square miles, or 25,064 acres; 13,771 acres cultivated; 686 cultivable; 10,605 uncultivable; 130 estates; land revenue, £1243; chief villages, Gobindpur and Kurang.

(75) SWARASWATI: area, 9·49 square miles, or 6079 acres; 3380 acres cultivated; 442 cultivable; 2247 uncultivable; 14 estates; land revenue, £459, 18s. od.; chief village, Purúshottampur.

(76) SHAHABAD: area, 3·32 square miles, or 2124 acres; 1541 acres cultivated; 225 cultivable; 357 uncultivable; 3 estates; land revenue, [illegible]08, 4s. od.

(77) SHERGARHA: area, 137·70 square miles, or 88,127 acres; 33,527 acres cultivated; 2250 cultivable; 52,344 uncultivable, 126 estates; land revenue, £·926, 14s. od.; chief villages, Korái and Pánikauli.

(78) SHUJABAD: area, 4·6 square miles, or 2597 acres; 1715 acres cultivated; 176 cultivable; 706 uncultivable; 4 estates; land revenue, £122, 8s. od.; chief villages, Gulnagar and Sayyidpur.

(79) SHU ANAGAR: area, 17·30 square miles, or 11,069 acres, 5759 acres cultivated; 836 cultivable; 4473 uncultivable; 19 estates; land revenue, £435, 4s. od.; chief villages, Chaupárá and Eranch.

(80) SUHANG: area, 17·66 square miles, or 11,304 acres; 6536 acres cultivated; 816 cultivable; 3951 uncultivable; 47 estates; land revenue, £709, 12s. od.; chief villages, Nembálo and Nágarpur.

(81) SUKINDA: area, 16·00 square miles, or 10,240 acres; no details; 1 estate; land revenue, £136, 8s. od.; chief villages, Banjá and Sukindá.

(82) SUKNAI: area, 28·77 square miles, or 18,413 acres; 11,677 acres cultivated; 1023 cultivable; 5712 uncultivable; 36 estates; land revenue, £1502, 8s. od.; chief villages, Narendrápur and Bángálpur.

(83) SULTANABAD: area, 5·25 square miles, or 3363 acres; 2153 acres cultivated; 404 cultivable; 805 uncultivable; 9 estates; land revenue, £124, 16s. od.

(84) SUNGRA: area, 41·87 square miles, or 26,799 acres; 19,164 acres cultivated; 1175 cultivable; 6459 uncultivable; 87 estates; land revenue, £2419, 14s. od.; chief villages, Sálipur and Lachhmábár.

(85) TAPANKHAND: area, 14·64 square miles, or 9371 acres; 2074 acres cultivated; 250 cultivable; 7046 uncultivable; 8 estates; land revenue, £278, 2s. od.; chief villages, Bánipádá and Guripatná.

(86) TISANIYA: area, 32·53 square miles, or 20,654 acres; 13,062 acres cultivated; 700 cultivable; 7056 uncultivable; 171 estates; land revenue, £1049, 2s. od.; chief villages, Binjhárpur and Márkandpur.

(87) TIKAN: area, 52·72 square miles, or 33,742 acres; 19,520

acres cultivated; 3069 cultivable; 11,153 uncultivable; 14 estates; land revenue, £1437, 2s. od.; chief villages, Kendrápárá and Thákurpatná.

(88) TIRAN: area, 42·8 square miles, or 26,933 acres; 17,297 acres cultivated; 781 cultivable; 8854 uncultivable; 13 estates; land revenue, £1887, 6s. od.; chief villages, Jagannáthpur and Pánduá.

(89) UTIKAN: area, 63·29 square miles, or 40,506 acres; 26,511 acres cultivated; 5092 cultivable; 8923 uncultivable; 7 estates; land revenue, £2711, 12s. od.; chief villages, Patámundái and Chandannagar.

The figures in the foregoing list may be taken as fairly representing the statistics of the different *parganás*, but the totals, although approximating to correctness, do not coincide with those obtained from more trustworthy sources. Moreover, it is not stated in the Board of Revenue's Statistics to what year the figures refer. The area of the District is now returned at 3858 square miles; and the Collector in 1870 returned the number of estates at 3571, and the Government rental at £84,781.

CULTIVABLE LAND.—According to the Settlement Record of 1837, the area then under cultivation was 1,045,227 acres; the area cultivable, but not under tillage, 94,357 acres; and uncultivable, 1,085,827 acres. Roughly speaking, therefore, one-half of the whole area was under cultivation or cultivable, the other half being uncultivable and waste. In 1837, the area capable of tillage, but lying untilled, was 9·02 per cent. of the land actually cultivated, or 4·23 per cent. of the whole District. In most *parganás*, however, the actual proportion of arable land was much greater than the uncultivable. The two large seaboard tracts of Kaniká and Kujang were, from the nature of the country, in a very backward state, and disturbed the general average. If they be omitted from the calculation, the result shows an area of 947,939 acres of cultivated or cultivable land, against 714,363 acres incapable of tillage. The Collector reports, that since the time to which the above figures refer, at least seven-eighths of the land set down as cultivable has been brought under the plough, and states that a large portion of that returned as uncultivable has also been reclaimed. The uncultivable land in the regularly settled part of the District was classified in 1837 as follows:—(1) Jungle lands, 131,852 acres; and (2) rivers, roads, waste lands, etc., 378,349 acres. A return drawn up in 1865

states that, of this area, 32,895 acres of jungle, and 96,587 acres of waste land, were then capable of being brought under cultivation. This has now to some extent been laid under crops, and the Collector in 1870 estimated the total increase of rice cultivation at nearly one-fourth during the previous twenty years. The latest statistics on this subject will be found *ante* (pp. 105-107), under the heading Area and Out-turn of Crops.

SURVEY MEASUREMENTS.—The foregoing estimates were made for Settlement purposes; and I have deemed it necessary to give them, as the Settlement of 1837 was continued unchanged in 1867 for a further period of thirty years, and is still current. The Survey officers divided the District into eighty Fiscal Divisions (*parganás*) instead of eighty-nine; and owing to changes in the boundaries of such Divisions, and to a more correct system of measurement, obtained very different results. These results are now embodied in the Surveyor-General's maps (scale, 1 mile to the inch), which represent the area of each *parganá* and net total area of the District at the period of their last measurement. The differences are due, as already stated, not merely to a more accurate system of work, but to changes in the boundaries of the *parganás* and of the District.

The total area of the District is returned by the Surveyor-General at 3178·39 square miles, arranged in eighty *parganás*, as follows:—(1) Abartak, area 9·73 square miles, or 6225 acres. (2) Aul Kilá, 80·60 square miles, or 15,582 acres. (3) Alti, 79·19 square miles, or 50,682 acres. (4) Anábartak, 4·20 square miles, or 2686 acres. (5) Apilá, 5·24 square miles, or 3353 acres. (6) Asureswar, 68·89 square miles, or 44,091 acres. (7) Arakpur, 4·79 square miles, or 3064 acres. (8) Atkhanta, 6·02 square miles, or 3851 acres. (9) Ahiyás (portion of), 33·29 square miles, or 21,306 acres. (10) Bahumpá, 1·66 square miles, or 1059 acres. (11) Bákrábád, 60·93 square miles, or 38,993 acres. (12) Bálubisi, 59·77 square miles, or 38,252 acres. (13) Bárán, 26·72 square miles, or 17,103 acres. (14) Bárdiyálá, 6·81 square miles, or 4357 acres. (15) Bárgáon, 16·10 square miles, or 10,303 acres. (16) Barpallá, 6·42 square miles, or 4109 acres. (17) Baruyá, 50·03 square miles, or 32,019 acres. (18) Báutará, 5·58 square miles, or 3574 acres. (19) Benáhár, 47·16 square miles, or 30,182 acres. (20) Bishnupur Kilá, 17·51 square miles, or 11,208 acres. (21) Cuttack Hávilí, 14·84 square miles, or 9499 acres. (22) Chauda Kolát, 13·08 square miles, or 8374 acres. (23) Chhedrá Kilá, 8·37 square miles, or 5356 acres.

(24) Dálijorá, 79·64 square miles, or 50,971 acres. (25) Dámatpur, 17·09 square miles, or 10,935 acres. (26) Darpan Kilá, 100·91 square miles, or 64,580 acres. (27) Deogáon, 50·93 square miles, or 32,595 acres. (28) Derábísi, 50·85 square miles, or 32,546 acres. (29) Dolgrám, transferred from Balasor District, 43·99 square miles, or 28,155 acres. (30) Dompárá Kilá, transferred from the Tributary States, 84·83 square miles, or 54,293 acres. (31) Gandito, 14·91 square miles, or 9545 acres. (32) Harihatpur (Jagatsinhpur), 65·37 square miles, or 41,839 acres. (33) Harishpur Kilá, 62·09 square miles, or 39,736 acres. (34) Hátimundá, 16·07 square miles, or 10,286 acres. (35) Jájpur, 70·20 square miles, or 44,924 acres. (36) Jhankar, 56·77 square miles, or 36,331 acres. (37) Jodh, 15·09 square miles, or 9659 acres. (38) Kalámátiyá, 44·10 square miles, or 28,221 acres. (39) Kalkalá Kilá, 17·56 square miles, or 11,238 acres. (40) Kanchikhand, 4·65 square miles, or 2973 acres. (41) Kaniká, 280·84 square miles, or 179,737 acres. (42) Karimúl, 27·80 square miles, or 17,791 acres. (43) Káte, 68·35 square miles, or 43,745 acres. (44) Káyamá, 14·31 square miles, or 9157 acres. (45) Káyamá Kilá, 6·47 square miles, or 4143 acres. (46) Keruyálkhand, 9·61 square miles, or 6150 acres. (47) Khandi, 30·29 square miles, or 19,385 acres. (48) Kodindá, 38·23 square miles, or 24,469 acres. (49) Kokuyákhand, 29·27 square miles, or 18,736 acres. (50) Kotdes (one village of, transferred from Purí), 0·34 of a square mile, or 219 acres. (51) Kuhundá Jayapur, 21·48 square miles, or 13,749 acres. (52) Kátiyá, 26·77 square miles, or 17,132 acres. (53) Kújang Kilá, 358·38 square miles, or 229,366 acres. (54) Kurniyá, 7·57 square miles, or 4846 acres. (55) Kusmandal, 8·36 square miles, or 5353 acres. (56) Kutabsháhí, 0·42 of a square mile, or 269 acres. (57) Madhupur Kilá, 60·58 square miles, or 38,773 acres. (58) Mátkadábád, 15·23 square miles, or 9743 acres. (59) Mátkadnagar, 34·05 square miles, or 21,794 acres. (60) Neulbísi, 4·12 square miles, or 2640 acres. (61) Náhákhand, 17·33 square miles, or 11,088 acres. (62) Olásh, 41·57 square miles, or 26,603 acres. (63) Padampur, 24·91 square miles, or 15,940 acres. (64) Páená, 10·42 square miles, or 6669 acres. (65) Páendá, 38·87 square miles, or 24,877 acres. (66) Pánikhand, 3·62 square miles, or 2316 acres. (67) Patiyá Kilá, 42·21 square miles, or 27,013 acres. (68) Sáhibnagar, 6·44 square miles, or 4122 acres. (69) Sáibir, 33·56 square miles, or 21,477 acres. (70) Sáilo, 41·23 square miles, or

26·388 acres. (71) Swaraswatí, 11·10 square miles, or 7104 acres. (72) Shergarhá, 136·69 square miles, or 87,478 acres. (73) Suháng, 18·85 square miles, or 12,067 acres. (74) Suknai, 31·01 square miles, or 19,846 acres. (75) Sungrá, 46·99 square miles, or 30.073 acres. (76) Tisániyá, 32·79 square miles, or 20,983 acres. (77) Tapankhand, 13·29 square miles, or 8505 acres. (78) Tikan, 56·36 square miles, or 36,068 acres. (79) Tiran, 43·82 square miles, or 28,848 acres. (80) Utikan, 68·08 square miles, or 43,573 acres. Total area, 3178·39 square miles, or 2,034,476 acres. The exact area has been since ascertained to be 3858 square miles

CLIMATE, TEMPERATURE, AND RAINFALL.—The climate of Orissa is the same as that of the southern Districts of Bengal, and may be divided into three seasons, the hot, the rainy, and the cold. The hot season commences in March and lasts till about the middle of June, the rains last from the middle of June to October, and the cold weather from the beginning of November till the end of February. The Meteorological Department has two stations in Cuttack District,—one at False Point lighthouse, and the other at Cuttack town The monthly mean temperature at each of these stations during the six years from 1868 to 1873 is thus returned in the Report of the Meteorological Department for the latter year:—False Point—January, 71·3°; February, 75·3°; March, 80·4°; April, 84·0°; May, 86·8°; June, 86·4°; July, 84·7°; August, 84·8°; September, 85·0°; October, 83·4°; November, 77·0°; December, 70·9°: average for the year, 80·8°. Cuttack town—January, 70·9°; February, 75·2°; March, 81·1°; April, 86·2°; May, 89·2°; June, 86·4°; July, 83·5°; August, 83·3°; September, 83·1°; October, 81·1°; November, 74·7°; December, 70·1°· average for the year, 80·4°. The following exhibits the highest maximum, lowest minimum, and monthly mean thermometrical readings at the Cuttack station in 1873—January, maximum, 90·2°; minimum, 49·3°; mean, 72·0°. February, max., 99·3°; min., 55·7°; mean, 77·0°. March, max., 105·2°; min., 66·4°; mean, 82·2°. April, max., 108·2°; min., 70·0°; mean, 86·4°. May, max., 110·5°; min., 72·1°; mean, 88·5°. June, max., 108·5°; min., 74·4°; mean, 89·4°. July, max., 94·8°; min., 75·0°; mean, 82·5°. August, max., 98·2°; min., 74·7°, mean, 83·1°. September, max., 97·2°; min., 74·9°; mean, 83·3°. October, max., 95·3°; min., 63·0°; mean, 80·6°. November, max., 94·1°; min., 58·6°; mean, 74·6°. December, max., 89·5°; min., 53·4°; mean, 71·1°. The average annual rainfall in Cuttack District during the twelve years

previous to 1873 is returned at 54·25 inches, and that of False Point for the previous six years at 74·65 inches. In 1873 there was a deficient rainfall, only amounting to 38·61 inches, or 29 per cent. below the average, in Cuttack town; and to 61·60 inches, or 17 per cent. below the average, at False Point. In that year, rain was measured on 94 days at Cuttack town, and on 65 days at False Point.

ENDEMICS.—Intermittent fever is common throughout the year, but reaches its greatest intensity from the close of the rainy season in October to the end of December. The houses throughout the District are built of mud dug up from the vicinity of the dwellings. The consequence is, that in the neighbourhood of almost every hut or house there is a dirty pit, filled to overflowing with water in the rainy season, and the receptacle of every description of filth. After the rains, when the water dries up, these holes throw off a malarial stench, charged with fever-poison. Fevers of a very severe type prevail in the hill tracts from October to the end of December. Elephantiasis is also common. The Civil Surgeon, after five years' residence in the District, reported to me in 1870, that he had not observed any improvement in the health of the inhabitants during that period.

EPIDEMICS.—Cholera always breaks out in the months of June, July, and August, being brought by the pilgrims bound to or from the great festival of Jagannáth. Measles appear to be unusually prevalent in Cuttack city and District. Small-pox generally makes its appearance about the beginning of the year, and as a rule ends before the middle of April. The Civil Surgeon states that its regular appearance during these months is owing to the practice of inoculating with small-pox matter. The inoculators preserve the virus in cotton, and commence operations about the end of December or beginning of January. Small-pox thus spreads to the unprotected, and becomes general throughout the District. The Uriyás are perfectly regardless of contagion; and it is no uncommon sight to see people in the streets, or walking about the crowded market-places, covered with the disease. Ancient prejudice stands in the way of vaccination, and even the more enlightened natives of Orissa will seldom allow their children to be touched with vaccine matter. The Civil Surgeon reports favourably of the precautions which have been adopted to keep the pilgrims (the main cause of cholera epidemics) out of the town of Cuttack. This is effected by a sanitary cordon, drawn round the municipal limits, within which

pilgrims are refused admittance. They are consequently compelled to make a detour and to avoid the town.

CHARITABLE DISPENSARIES.—There are two institutions in Cuttack District for affording charitable medical relief, viz. the Cuttack dispensary or *ánnáchhatar* hospital, and the Jájpur dispensary. The following statistics regarding these institutions, and the amount of medical relief afforded by them, are quoted from the Civil Surgeon's reports for 1871-72 and 1872-73, printed in the Annual Dispensary Reports for those years.

'THE CUTTACK DISPENSARY or *ánnáchhatar* hospital differs in many respects from similar institutions of the kind in being connected with, or rather forming a part of, a general scheme for giving charitable aid to pilgrims and other poor people, and for supporting a number of *pandás* or Hindu priests who keep up various temples and shrines in the neighbourhood of Cuttack. The income of the charity in 1873 amounted to £54, 19s. 9d. per mensem. Of this sum £7, 11s. 5d. was assigned to the Balasor dispensary; £11, 15s 8d. was paid to the *pandás* or in pensions; £5, 11s. 0d. in salaries for the establishment; £6 was expended in feeding about 38 paupers, such as the halt, lame, blind, leprous, etc., who assemble twice daily, and receive each time a substantial meal of cooked food; and about £20 was expended in the support of what may be called the dispensary proper, which is, however, only part of the general institution. The *ánnáchhatra* fund appears to have had its origin in assignments by the successive Hindu, Muhammadan, and Marhattá Governments for religious and charitable purposes. At the time of the first Settlement of the District after its conquest, these charitable and religious assignments were continued as a charge on the revenues of the Province. The dispensary and hospital building, and the shed for feeding the paupers, are all in one enclosure, conveniently situated between the regimental *bázár* and the principal part of the native city. The dispensary has three buildings,—one a female ward, which accommodates ten patients, and is generally full, partly with diseased prostitutes from the town and partly with starving pilgrims. The second building consists of one large room, partially separated into two by a screen wall, which holds eighteen patients; this also is generally filled with pilgrims, some half-starved, and others brought in in the last stages of diarrhœa, dysentery, and other wasting diseases. The third small building is for the medicines, instruments, and other hospital stores. There are also in the enclosure a privy, a dead-house, cook-house,

and quarters for the native doctor; and one-half of the building used as a female ward is divided off specially for patients from the Irrigation Works. In 1871 the total number of in-door patients treated in the dispensary was 283; of whom 189 were cured and relieved, 28 did not improve or ceased to attend, 47 died, and 19 remained in hospital at the close of the year; ratio of deaths to persons treated, 16·60 per cent.; average daily number of sick, 23·52. The out-door patients receiving treatment in the same year amounted to 4978, the average daily attendance being 50·98. The statistics of relief in 1872 were as follow:—Total in-door patients, 314; of whom 194 were cured or relieved, 20 did not improve or ceased to attend, 72 died, and 28 remained in hospital at the close of the year; ratio of deaths to persons treated, 22·93 per cent.; average daily number of sick, 26·22. The out-door patients receiving treatment in 1872 amounted to 5519; average daily attendance, 64·99. The total income of the dispensary in 1872, including balance brought forward from the previous year, amounted to £2980, 18s. od. and the expenditure to £2175, 15s. od., leaving a balance in hand of £805, 3s. od. at the close of 1872. The Civil Surgeon states that of the in-door patients nearly the whole were pilgrims, or starving people picked up on the roads and brought in by the police. The people of Cuttack, of the ordinary class of hospital patients, will hardly ever enter the hospital. The fact that it is a pauper asylum quite drives away all other classes of patients, so that for Cuttack itself the hospital is almost useless. Nothing will induce people with acute disease, or any cases requiring operation, to remain in hospital. The attendance of out-patients is perhaps more satisfactory, as the people have not the same objection to visit the dispensary for treatment, but for a large town like Cuttack, with only one dispensary, the attendance is very small.'

In 1870-71 subscriptions were set on foot towards the building of an enlarged hospital and pilgrim's rest-house, and about £1000 was raised for this purpose. The total cost of the building was estimated in 1872 to amount to about £3000, of which one-half was to be paid by Government, and the other half raised from local funds. The Dispensary Report for 1872 states that the building was to be completed during the course of 1873. In that Report the Civil Surgeon states:—'The scheme is for a sort of general hospital, and the building is on a grand scale, with an upper storey for European patients and special wards; and the lower storey to contain an out-

patient dispensary, an irrigation dispensary, wards for ordinary patients and for irrigation employés, and one wing set apart for pilgrims and other pauper patients. The new building is situated in the suburb of Manglábád, near the large irrigation workshop of Jobrá; but unfortunately it is three miles from the heart of the native town, and this will, I fear, detract greatly from its usefulness as a general dispensary and hospital. The presence, again, of the pilgrim and pauper cases in the building will, I fear, still deter the ordinary class of dispensary patients from attending freely as in-door patients.'

THE JAJPUR DISPENSARY was established in 1857. In 1871 the total number of patients receiving in-door treatment amounted to 66; of whom 47 were relieved or recovered, 12 did not improve or ceased to attend, 5 died, and 2 remained in hospital at the end of the year; ratio of deaths to persons treated, 7·57 per cent.; average daily number of sick, 3·10. The in-door patients numbered 1536; average daily attendance, 27·50. In 1872, 74 in-door patients were treated; of whom 67 were cured or relieved, 1 did not improve, 4 died, and 2 remained in hospital at the close of the year, ratio of deaths to persons treated, 5·4 per cent.; daily average number of sick, 3·1. The out-door patients numbered 1356; average daily attendance, 33·70. The total income of the dispensary in 1872, including balance brought forward from the previous year, amounted to £66, 3s. 6d., and the expenditure to £62, 4s. 0d.; leaving a balance in hand at the end of 1872 of £3, 19s. 6d. The patients at the dispensary are principally mendicants; and the Civil Surgeon states that, 'as at all dispensaries where starving pilgrims and paupers have to be taken in, the other classes look upon the place as polluted, and will never remain.'

THE CUTTACK LUNATIC ASYLUM.—The daily average number of patients, and the percentage of deaths in the Cuttack lunatic asylum, for each of the years 1865–1870, is returned as follows:— In 1865, the daily average number of inmates was 25, and the death-rate 4 per cent. In 1866, the daily average of inmates was 30, and the death-rate 20 per cent.; in 1867, the daily average of inmates was 33, and the death-rate 12·12 per cent.; in 1868, the daily average of inmates was 36, and the death-rate 11·11 per cent.; in 1869, the daily average of inmates was 36, and the death-rate 8·27 per cent.; in 1870, the daily average of inmates was 38, and the death-rate 5·1 per cent. In 1874-75, the latest year for which

I have statistics, the daily average number of inmates in the lunatic asylum was 57·8, the total number treated being 84; of these, 14 were discharged cured, 7 were transferred to their friends, and 3 died. The asylum is not very favourably situated, being in the centre of the town, and cramped for space. A new asylum in a more suitable locality has been determined upon. The lunatics are employed out of doors, in weeding and watering the gardens, but are not trusted with garden implements. In-doors, they are employed in weaving, spinning twine and thread, tailoring, cooking, and *surki* pounding.

VITAL STATISTICS.—Since 1873, a new system for the registration of vital statistics has been introduced. The previous system, under which the general vital statistics for each District of Bengal were registered by the police, was recognised to be hopelessly inaccurate; and accordingly, special areas, one in the town and one in the country, were selected as the scene of a more minute and regular system. The urban area chosen in Cuttack District comprises the three large towns of Cuttack, Kendrápárá, and Jájpur, with a total population of 72,313. The number of deaths within this area in 1873 was 1706, equal to a death-rate of 23·57 per thousand per annum, or 4·8 below the average death-rate for all the selected urban areas in Bengal. In the following year, 1874, an accurate record of births as well as of deaths was effected. The total number of births thus recorded in the towns of Cuttack, Kendrápárá, and Jájpur was 3246, equal to a birth-rate of 44·88 per thousand per annum, or 5·28 above the general rate throughout the selected urban areas in Bengal. In the same year, the deaths in the three towns numbered 2131, equal to a death-rate of 29·46 per thousand per annum, or ·95 above the general rate in the urban areas throughout Bengal. The selected rural area consists of 36 villages containing a total population of 14,834. The number of registered deaths in this tract in 1873 was 234, equal to a death-rate of 15·77 per thousand per annum, or 6·88 below the average death-rate for all the selected rural areas. In 1874, the number of ascertained births in this selected rural area was 678, equal to 45·76 per thousand per annum, or 10·73 above the general rural rate throughout Bengal; the deaths numbered 392, equal to 26·42 per thousand per annum, or 5·22 above the general rural death rate throughout Bengal.

FAIRS.—The only large fair or religious gathering is the *Pdruni*, which takes place in all the larger towns in the months of May or

June; the most important being held on the sands of the Baitaraní at Jájpur, and continuing for two or three days. It is not attended by people from other Districts; but the peasants for miles around flock into the nearest town where it is held, sometimes to the number of 10,000 persons, laden with rural produce for barter or sale. The Civil Surgeon reports that no connection exists between these gatherings and the outbreak of epidemics. Cholera generally appears with the arrival of the Puri pilgrims, and does not cease till they have left the District.

Cattle Disease is prevalent in Cuttack and throughout the Orissa Division, although no attention seems to have been bestowed on the subject prior to 1863. In that year, disease was reported to be raging fearfully in the Tributary States, and also along the hilly western frontier of Cuttack, in which 'more than half the cattle' are reported to have been lost. In the following year, 1864, the Commissioner reported the extensive prevalence of cattle murrain in the Division. In 1866, an attack of foot-and-mouth disease appeared among the artillery cattle in the Station of Cuttack. *Guti*, or cattle small-pox, which has been identified with the European 'rinderpest,' also broke out among the artillery cattle in November 1868, but was successfully overcome by the segregation of the animals affected. Cattle disease again broke out in Cuttack in 1869, and continued prevalent in certain tracts till the close of 1870. A brief description of the different forms of epizootic prevalent in Orissa will be found in my Statistical Account of Balasor District, where the outbreaks appear to have been of a more severe and fatal character than in Cuttack.

The Indgenous Drugs are as follow:—*Ambulá* (Spondias mangifera); a bark used in dysentery. *Ankránti* (Solanum jacquinii); an expectorant. *Ansun* (Terminalia tomentosa); a stimulant. *Arjun* (Terminalia arjúna); bark astringent and diuretic febrifuge. *Arkhá* (Calotropis gigantea); a stimulant, the leaves used as an anodyne, and in elephantiasis, ringworm, lepra, and as a poultice in sprains and boils. *Aguyábát* (Premna spinosa); a stimulant, febrifuge, and expectorant; also used in eruptive diseases, and in indigestion. *Asuágandhá* (Physalis somnifera); the bark and root used as a tonic, anodyne, and diuretic; the leaves steeped in oil are used for boils and other inflammatory eruptions. *Asok* (Jonesia asoka); bark used as an astringent in cases of internal hæmorrhoids, and also in menorrhagia. *Am*

(Mangifera Indica); a bark used as an astringent in diarrhœa. *Bel* (Ægle marmelos); a fruit used in dysentery and diarrhœa. *Bhringaráj* (Verbesina scandens); used externally in headache and ophthalmia. *Bámanhátá* (Clerodendron siphonanthus); used in asthma and fevers. *Baulo* (Mimusops elengi); a bark used as an astringent in sore throat. *Bájrá múlá* (Penicillaria spicata); root used in gonorrhœa. *Bháliyá* (Semecarpus anacardium); a tonic and counter-irritant; also used in lepra and indolent sores. *Beguniyá;* an expectorant and stimulant. *Báhárá* (Terminalia belerica); an astringent used in diarrhœa and dysentery. *Báygobá,* two kinds (Jatropa curcas and J. glandulosa); an anodyne; the oil from the nut used in rheumatism, etc. *Bená* (Andropogon muricatum); a diaphoretic and febrifuge. *Básang* (Bergera kœnigii); an expectorant and antispasmodic. *Bhutairi;* tonic and febrifuge. *Bar koli* (Zizyphus jujuba); bark of the root used as an astringent in diarrhœa. *Báibidanga* (Embelia ribes); a vermifuge. *Báruná* (Cratæva nurvala); bark used as a tonic and febrifuge. *Bhui aolá* (Phyllanthus niruri); root used in jaundice, etc. *Bákuchí* (Psoralia corylifolia); used in lepra and skin diseases. *Chatauri* (Asparagus racemosus); tonic used in gonorrhœa and lepra. *Chemudánimúl* (Hemidesmus Indica); alterative used in syphilis. *Chiretá* (Agathotes chirayta); not an indigenous drug; used as a febrifuge and tonic. *Chitámúl-níl* (Plumbago zeylanica); a vescicant. *Chitámúl-lál* (Plumbago rosea); used in spleen, and for procuring abortion. *Chákundá* (Cassia tora); leaves used as a purgative. *Champá* (Michelia champaca); bark a stimulant, expectorant, and astringent; seeds and fruit used for healing cracks in the feet; root a purgative. *Dálimbá* (Punica granatum); root and bark astringent. *Dhuturá,* all kinds (Datura metel); narcotic, stimulant, antispasmodic, and anodyne, and smoked in asthma. *Dáru haldá;* used in palpitation of the heart, and in ophthalmia and rheumatism. *Donti* (Croton polyandrum); root and seeds used as a purgative. *Dudhiá-latá* (Oxystelma esculentum); a decoction of the plant used in ulceration of the mouth; the fresh roots in jaundice. *Ghi-kumárí* (Agave cantula); used in vertigo and tic as a refrigerant. *Gila* (Guilandina bonduc); seeds used as a tonic and febrifuge; root in rheumatism. *Gajá pipal* (Scindapsus officinalis); a febrifuge, tonic, and stimulant. *Golancha* (Cocculus cordifolius); tonic, febrifuge, and antibilious. *Gab* (Ricinus communis); oil purgative, old oil used in rheumatism. *Gakhurá* (Tribulus terrestris); tonic,

anodyne, and febrifuge. *Hastí-karna* (Clerodendron hastata); tonic, febrifuge, and purifier of the blood. *Hárbhángá* (Cissus quadrangularis); used for dislocations and in joining fractures. *Hijlí bádám* (Anacardium occidentale); oil used in rheumatism, etc. *Haritaki* (Terminalia chebula); tonic in fever. *Indrajab* (Wrightia antidysenterica); bark, root, and seeds used in dysentery, diarrhœa, and fever, and as a vermifuge. *Indra báruní;* a purgative. *Isábgul* (Plantago ispaghula); diuretic and demulcent, used in urinary diseases. *Jám* (Eugenia jambolana); root and bark used as an astringent in diarrhœa. *Jaitimúl* (Æschynomene sesban); root an antispasmodic; leaves used as a poultice in orchitis. *Jádumári* (Cassia alata); leaves used in ringworm. *Jayapál* (Croton tiglium); seeds used as a purgative; root in snake-bite. *Kaukuá* (Alpina); bark an astringent; root a vermifuge. *Krishna párni* (Herpestis monniera); febrifuge and antibilious. *Kantákusum* (Argemone Mexicana); the yellow milk used in itch and ringworm, as well as the oil of the seeds. *Kuchilá* (Strychnos nux-vomica); poison, used as a febrifuge, antirheumatic, and in lepra; also as an antisyphilitic. *Káládáná* (Pharbitis nil); seeds and roots purgative. *Karmangá* (Averrhoa carambola); seeds used as a vermifuge. *Kásondi* (Cassia sophera); seeds used as a vermifuge, and in scabies. *Khetpápra* (Oldenlandia biflora); an excellent febrifuge, tonic, and stimulant. *Lanká siju* (Euphorbiaceæ); juice or milk used as a detergent healing, or in swellings; the bark and seeds as purgatives. The milk of some species used in cases of scabies, lepra, and ringworm. *Ludhu* (Symplocos racemosa); astringent and antibilious, used in ophthalmia. *Muthá* (Cyperus longus); febrifuge and tonic. *Matmatiá;* tonic, febrifuge, and vermifuge. *Mán sáru* (Arum Indicum); used in piles. *Murgábi* (Sanseviera zeylanica); a febrifuge, also used in consumption. *Mahánim* (Melia sempervirens); astringent, refrigerant, and used in lepra. *Manjistá* (Rubia munjista); tonic, and used in hysteria. *Nágeswar* (Mesua ferrea); oil used in chronic rheumatism, the flowers as a refrigerant and tonic. *Nim* (Melia azadirachta); tonic and febrifuge; leaves used as poultices in bad ulcers, lepra, and other skin diseases. *Ol* (Arum campanulatum); used in indigestion, colic, piles, and enlargement of the spleen. *Pán* (Piper betle); stimulant and expectorant; the root is used to prevent child-bearing. *Phutphutiká*, used in scabies, and as a poultice in sprains. *Pitá-nalitá* (Corchorus olitorius); bitter tonic. *Patal* (Trichosanthes dioica); cathartic. *Palás* (Butea frondosa); gum

or resin astringent; the seeds used as a vermifuge. *Raktachandan* (Pterocarpus santalinus); astringent and febrifuge. *Suánoi*, tonic, febrifuge, vermifuge, and purifier of the blood. *Sunári* (Cathartocarpus fistula); a purgative. *Somráj* (Serratula anthelmintica); vermifuge. *Sujiná* (Moringa pterygosperma); stimulant, diuretic, used in colic. *Sálpárni*; febrifuge and tonic, allays thirst in fever. *Sál* (Shorea robusta); seeds astringent; the young shoots are used in cases of inflammation. *Simul* (Bombax heptaphyllum); seeds used to prevent small-pox from spreading over the body. *Sonámukhi* (Cassia obovata); purgative. *Tentuli* (Tamarindus Indica); seeds astringent; used in diarrhœa. *Tchori* (Ipomœa turpethum); purgative and cathartic. *Tálmúli* (Curculigo orchioides); tonic and purifier of the blood. *Tundporá*; stimulant, expectorant, antisyphilitic, and antiseptic.

STATISTICAL ACCOUNT

OF THE

DISTRICT OF BALASOR.

STATISTICAL ACCOUNT

OF THE

DISTRICT OF BALASOR.[1]

BALASOR (a corrupted form of Báleswara, 'the Young Lord,' *i.e.* Krishna, or perhaps Baneswara, 'the Forest Lord,' *i.e.* Mahádeva) is the northern District of the Orissa Commissionership or Division. It is situated between 20° 43′ 50″ and 21° 56′ 30″ north latitude, and between 86° 18′ 40″ and 87° 31′ 20″ east longitude. It contains an area, as returned by the Surveyor-

[1] This Statistical Account has been mainly compiled from my work on Orissa (2 vols. London 1872, Smith, Elder, & Co.), based upon materials furnished by the District officers, and my own personal researches and inquiries, supplemented by the following materials:—(1) Annual Administration Reports of the Government of Bengal from 1871-72 to 1874-75; (2) *The Bengal Statistical Reporter* from November 1875 to October 1876; (3) Bengal Census Report, 1872, with subsequent District Compilation by Mr. C. F. Magrath, C.S.; (4) Report on the Indigenous Agency employed in taking the Census; (5) Report on the Food-Grain Supply of Bengal, by Mr. A. P. Macdonnell, C.S. (Calcutta 1876); (6) Report on the Land Tenures of Balasor, by Mr. W. Fiddian, C.S., dated 22d September 1875; (7) The Collector's Report on the Rates of Rent current in the District, dated July 1872; (8) Report of the Commissioners appointed to inquire into the Famine in Bengal and Orissa in 1866; (9) Special Return of Revenue and Expenditure in 1870-71, and other Statistics, furnished by the Collector; (10) Report of the Inspector-General of Police for 1872; (11) Report of the Inspector-General of Jails for 1872, with special Jail Statistics for the years 1857-58, 1860-61, and 1870; (12) Annual Report of the Director of Public Instruction for 1872-73, with special Statistics compiled for the years 1856-57, 1860-61, and 1870-71; (13) Postal Statistics for 1861-62, 1865-66, and 1870-71, furnished by the Director-General of Post Offices; (14) Report of the Meteorological Department for 1873; (15) Medical Report by the Civil Surgeon; (16) Report on the Charitable Dispensaries of Bengal for 1871 and 1872; (17) Statement of Area, Latitudes, and Longitudes, etc., furnished by the Surveyor-General.

General in January 1876, of 2068·12 square miles; and a population, as ascertained by the Census of 1872, of 770,232 souls. The principal town, which is also the Administrative Headquarters of the District, is Balasor, situated on the right or west bank of the Burábalang river, in 21° 30′ 12″ north latitude, and 86° 58′ 16″ east longitude.

Boundaries.—Balasor District is bounded on the north by the Bengal District of Midnapur and by the Tributary State of Morbhanj; on the east by the Bay of Bengal; on the south by Cuttack District, the Baitaraní river forming the boundary-line; and on the west by the Tributary States of Keunjhar, Nílgirí, and Morbhanj.

The Jurisdiction of Balasor has undergone many changes. Captain Morgan, the first British officer in charge of the District in 1804, exercised authority between the sea and the Hill States, as at present; but all the Fiscal Divisions (*pargands*) beyond Nángaleswar and Sátmalang to the north were under Midnapur. To the south, his limits were ill-defined, and it is uncertain whether Bhadrakh was within his jurisdiction. At that time the country was so unsettled, that large discretion had to be allowed to the officers. For example, the Kaniká Rájá frequently gave trouble, and was sometimes coerced from Cuttack District, and sometimes from Balasor, as was found most convenient. Mr. R. Ker was appointed, with the title of Collector, in 1804, and exercised jurisdiction as far south as the Bráhmaní river. From the 18th July 1805 to the 3d August 1821, Balasor was managed from Cuttack, and had no separate revenue officer. From 1821 to 1827 a Joint Magistrate administered the District as the Deputy of the Collector of Cuttack. In 1827 Balasor was erected into an independent Collectorate under Mr. H. Ricketts; and in 1828 Jájpur and Bhadrakh were attached to it. Jájpur was subsequently transferred to Cuttack. On the north, a perplexing series of transfers and re-transfers of Fiscal Divisions has gone on between Balasor and Midnapur, particularly in the years 1837, 1858, 1865, and 1868. Some have been transferred backwards and forwards as many as three times; and the Collector reports that 'constant shifting of jurisdiction has made these *pargands* very lawless and difficult to manage.'

General Description of District.—Balasor District is simply a strip of alluvial land between the hills and the sea, varying from about nine to thirty-four miles in breadth. Generally speaking, the

hill country rises from the western boundary-line. The District naturally divides itself into three well-defined tracts: (1) The Salt Tract along the coast; (2) the Arable Tract, or rice country; and (3) the Submontane Tract, or jungle lands.

THE SALT TRACT runs the whole way down the coast, and forms a desolate strip a few miles broad. Towards the beach it rises into sandy ridges, from fifty to eighty feet high, sloping inland, and covered with a vegetation of low scrub jungle, seldom or never rising above the height of a man. Sluggish brackish streams creep along between banks of fœtid black mud. The sandhills on the verge of the ocean are carpeted with the fleshy leaves of creepers and the wild convolvulus, on which the antelope loves to feed. Inland, the plain spreads out into prairies of coarse long grass and scrub jungle, which harbour wild animals in great plenty; but throughout this vast region there is scarcely a hamlet, and only a patch of rice cultivation at long intervals. From any part of the Salt Tract one may see the boundary of the inner arable part of the District, fringed with long lines of trees, from which every morning the villagers drive their herds of cattle out into the saliferous plains to graze. This tract is purely alluvial, and appears to be of recent date. Towards the coast, the soil has a distinctly saline taste, and the manufacture of salt is carried on to a considerable extent. An account of the method of salt manufacture adopted in Balasor District will be found on a subsequent page of this Statistical Account (*vide* p. 336).

THE ARABLE TRACT lies beyond the salt lands, and embraces the chief part of the District. It is a long dead level of rice fields, with a soil lighter in colour than that of Bengal or Behar, much more friable, and apt to split up into small cubes with a rectangular cleavage. Where water has lain long on fallow lands, the surface throws up curious little mounds, which are speedily covered with grass, and look like a number of men's heads protruding from the earth. Another feature of the Arable Tract is the *páts*, literally the 'cups,' or depressed lands near the river banks. They were probably marshes that have partially silted up by the yearly overflow of the streams. These cup-lands bear the finest crops. As a whole, the Arable Tract is a treeless region, except around the villages, which are encircled by fine mango, *pipal*, banyan, and tamarind trees, and intersected with green shady lanes of bamboo. A few palmyras, date palms, and screw pines (a sort of aloe whose leaves

are armed with formidable triple rows of hook-shaped thorns) dot the expanse, or run in straight lines between the fields.

The Submontane Tract is an undulating country with a red soil, much broken up into ravines along the foot of the hills. Masses of laterite, buried in hard ferruginous clay, crop up as rocks or slabs. At Kopári, in *kilá* Ambohatá, about two square miles are almost paved with such slabs, dark red in colour, perfectly flat, and polished like plates of iron. A thousand mountain torrents have scooped out for themselves picturesque ravines clothed with an ever fresh verdure of prickly thorns, stunted gnarled shrubs, and here and there a noble forest tree. Large tracts are covered with *sál* jungle, which nowhere, however, attains to any great height.

River System.—Balasor District is watered by six distinct river systems, viz, those of the Subarnarekhá, Pánchpárá, Burábalang, Jamká, Kánsbáns, and Baitaraní. The following is a brief description of each of these rivers, with their most important tributaries and offshoots:—

The Subarnarekha, 'the Streak of Gold,' takes its rise near the Station of Ránchí, in Lohárdagá District, in the Chutiá Nágpur Division. It enters Balasor District in *parganá* Fathiábád, flowing in a tortuous southern course, with gigantic bends east and west, till it reaches the sea, in latitude 21° 35′ north, and longitude 87° 23′ east. The river is navigable by country craft as high as Kálikápur, about sixteen miles from the mouth, to which point the tide also runs. Rice boats of two tons burden can make their way up to the boundary of Balasor District, and during the rains far into Morbhanj. The river banks are high and steep on the outer curve of the bends, against which the water cuts; and flat and sandy on the inner. The stream nowhere expands into lakes. It has no tributaries within the District, and although studded by islands as old as our oldest maps, has long ceased any operations of diluvion or alluvion on a large scale. The country around the banks is cultivated to within a few miles of the sea, where it becomes jungly. The Subarnarekhá is nowhere fordable within Balasor District during the rainy months.

The Panchpara.—The intermediate country, on the south of the Subarnarekhá and north of the Burábalang, forms a great line of drainage down from Morbhanj. It is watered by a number of small streams, of which the principal are the Jamirá, Báns, and Bhairingí. They unite, bifurcate, and re-unite in the wildest confusion, and at

length enter the sea, as the Pánchpárá, in latitude 21° 31′ north, and longitude 87° 10′ east. The tide runs up only ten miles; and although their interlacings constantly spread out into shallow swamps, yet one of them, the Báns, is deep enough at certain parts of its course for boats of four tons burden all the year round.

THE BURABALANG.—South of this network of rivers is the Burábalang, literally 'the Old Twister.' It rises among the Morbhanj hills, in lat. 21° 24′ N. and long. 86° 36′ E., and after receiving two small tributaries, the Gangáhar and Sunaí, wriggles into the sea in lat. 21° 28′ N. and long. 87° 5′ E. The tide runs up twenty-three miles. In the upper parts of its course the banks are sandy, steep, and cultivated; in the lower part they are of firm mud, covered to high-water mark with black slime, and surrounded by jungle or open grassy plains. Brigs, sloops, and sea-going steamers can navigate as far as the town of Balasor, about sixteen miles up its twisting course, but the sand-bar across the mouth of the river renders the entrance difficult.

THE JAMKA.—On the south of the Burábalang, a second network of rivers, known as the Jámká, find their way down the line of drainage from the Nílgirí hills, and enter the sea by many channels along the coast of Dasmalang *parganá*. There is little or no navigation, as their mouths are very difficult to enter; nor are there any towns with a maritime traffic on their banks.

THE KANSBANS OR KAINSBANS is so called from a jungle of *káins* grass and bamboos amid which it rises in *kilá* Ambohatá. The stream runs in a south-easterly direction, at first almost parallel with the Nílgirí hills, and receives from them a number of nameless drainage streams on its northern or left bank. At Bírpárá it bifurcates, the northern branch retaining its original name, and entering the sea in lat. 21° 12′ 25″ N., long. 86° 52′ 10″ E. The southern branch receives the name of Gammaí, and falls into the sea six miles south of the Kánsbáns. This river is navigable only a few miles up, but it is notorious for its sudden floods, and the vast extent of country which it submerges in the rainy season.

THE BAITARANI, identified by the Bráhmans as the Styx of Hindu mythology, but possibly a corruption of Avitaraní, meaning 'difficult to cross,' enters the District at the village of Bálípur, and flows for about forty-five miles in a south-westerly direction till it joins the Dhámrá, five miles from its mouth. The united stream enters the sea, under the name of the Dhámrá, in lat. 20° 47′ N., long. 87° E. The

Dhámrá is a fine navigable stream, but, like all the Orissa rivers, it is rendered perilous by a bar across its mouth. The Dhámrá estuary is described in my Statistical Account of Cuttack (*ante*, pp. 33-34). The Baitaraní forms the boundary between Balasor and Cuttack. It is nowhere fordable during the rains, but can be crossed everywhere in the dry weather above Olokh, about fifteen miles from its mouth. At Olokh it ceases to be navigable, and the tide does not run above this place. It receives two fine tributaries on its Balasor side, the Sálandí and the Mataí. The former, properly called Sálnadí, takes its name from the *sál* forests which it traverses. It rises on the southern slope of the Meghásaní mountain, literally the 'Seat of Clouds,' in Morbhanj, and throughout its upper course is a black-water river with high banks and a bottom of muddy sand. In January it scarcely anywhere exceeds three feet in depth. Luxuriant vegetation clothes its banks, which at times rise almost to the dignity of cliffs, and for miles the river runs through one continuous grove of mangoes, palms, and bamboos. It forms no islands or lakes, and has no tide, but it is navigable for country boats as high as six miles from its junction with the Baitaraní. Its lower course bifurcates into a network of streams, which are interlaced with those of the Mataí. The Mataí brings down the drainage of the country between the Kánsbáns and the Sálandí, and after a tortuous course over a muddy bed, and between densely wooded banks, enters the Dhámrá river near its mouth. A canal, the only old one in Balasor District, unites the Mataí with the Gammaí; but an embankment has been built right across its mouth, and it has ceased to be used for traffic.

PORTS AND HARBOURS.—'The District of Balasor has a coast-line of eighty-five miles, and possesses seven ports as originally constituted by a special Act in 1858. This Act has recently been repealed by the new Indian Ports Act. The names of the seven ports, proceeding from north to south, are as follow:—Subarnarekhá, Sárathá, Chhánuyá, Balasor, Láichanpur, Churáman, and the Dhámrá. The most important of these were, in former times, Subarnarekhá and Churáman. These are now the two most unimportant, having become gradually choked up with silt, the common enemy of all the rivers of the Province. The rivers are generally of sufficient depth, but each is blocked up by a bar of sand or mud across its mouth. It is an inexplicable fact that the Subarnarekhá, which exceeds all the other rivers of the District in length, in area of catchment basin (6500 square miles), and in volume of discharge

both in the rainy and dry season (the maximum discharge being 500,000 cubic feet per second), should have been the first thus to silt up. The phenomena which accelerate or retard the deterioration of these estuaries are at present but little understood by the engineering profession; and scientific research should be directed towards the discovery of means by which river currents may be enabled to maintain clear channels against the obstructive influences at work. This is the main object to which all our attempts at improving the ports of Balasor should be directed. Success in this direction would open up a future of almost unlimited commercial prosperity for the Province. The standard of living would be raised, by the regular importation of articles which people who reside in more accessible localities are accustomed to consider necessaries of life; cultivation would receive a stimulus which would teach the people the possibility of extracting from the soil other and more profitable products than rice, at present almost the sole crop grown, and almost the only commodity exported; commercial enterprise would draw upon the almost unlimited forest and mineral wealth of the Tributary States, separated from the seaboard by so short a distance; lastly, famine would become a thing of the past, and would survive only in the memories of men.' A detailed account of the import and export trade of the Balasor ports, as a whole, will be given in a subsequent section of this Statistical Account (pp. 337–344). This description of each of the different Balasor ports is mainly derived from a valuable article in *The Statistical Reporter* for April 1876.

'SUBARNAREKHA PORT.—The port of Subarnarekhá consists of a demarcated portion of the river of that name, situated some twelve miles from the sea by water route, or about six miles in a direct line. In early times it seems to have been by far the most important port on the Orissa coast. A colony is said to have been established here by the Portuguese at the beginning of the sixteenth century. Its special interest, however, consists in the fact that it appears to have been the earliest maritime settlement of the English in Bengal.' The English Settlement was founded on the ruins of the earlier Portuguese location at Pipplí, on the Subarnarekhá, in 1634, two years before the settlement at Balasor. Pipplí was ruined by the silting up of the river at its mouth. During the first half of the present century, the place lingered on as a ruined and silt-locked village, but a recent report states that no trace of the town now exists, at any rate under the same name. The article in *The Statistical*

Reporter continues as follows:—'No object seems discoverable on the banks of the Subarnarekhá to excite the interest or to reward the toil of the archæologist. Of the Portuguese and English settlements every vestige and trace has been obliterated. No remains of a single building erected by the settlers can now be traced, and it may be said of them that their place knows them no more. If the settlers ever constructed masonry buildings, it is not improbable that a change in the river's course may have washed them into its bed. Though most of the inhabitants of the vicinity have heard that the Subarnarekhá was formerly a great port, yet there is no fixed tradition as to the site of the old settlements; and if they are pressed for an opinion on the subject, some indicate one place, and some another. The most credible account is that given by the son of a former *kázi*, who lived close by. He stated that near the village of Mánuagar, on the right bank of the river, about four miles above the present port, there formerly existed a great settlement of of Firinghís (Europeans) and Mughuls, whose ships used to sail from the sea right up to the spot; and that the Firinghís had a cemetery with masonry tombs, and that the site of the whole has been washed into the river. He added that the river so often changes its course that to identify the precise spot would be impossible.

'In January 1875, Captain Harris, the Conservator of Orissa Ports, held a professional examination of the entrance to this port. He reported that the entrance to the river from the east, shown on old charts, had closed up, and that the only channel now remaining was to the south-west of the shoals in the mouth. The entrance was found so bad, that more than the actual rise of tide could not be calculated upon over the outer bar; that is, the sands stretching across the river's mouth are almost bare at low water. In the north-east monsoon, a steamer with a draught not exceeding nine feet, might enter and leave with the tide; but the port is quite unsafe during the south-west monsoon, as it presents a dead lee shore, with breakers right across the mouth. The place possesses no artificial conveniences or appliances, and Government has recently decided that the insignificance of its trade does not warrant any expenditure on its improvement. This conclusion is justified by the facts. The imports during the two last years (1873-1875) have been *nil*; the exports consist of a very few thousand *maunds* of rice, conveyed in large boats; the value of the exports in 1873-74 was £2439, in 1874-75 only £115. The port is, in fact, principally frequented by

fishing-boats, which in fair weather issue out in squadrons of fifteen to twenty, and travel down the coast as far as Puri. These fishermen are particularly keen in their pursuit of the *hilsá*, and a flotilla of them will sometimes drift along together for days, awaiting the approach of a shoal of that fish. When the shoal arrives, they at once fill their boats, steer straight for shore, and convert their haul into *sukhná*, or sun-dried fragments of fish—a favourite relish with the Uriyás. No regular survey of the Subarnarekhá river itself, as distinguished from its mouth, has been made. Over the bar, the river possesses a magnificent deep channel, and the only obstacle to navigation is that presented by the bar across the mouth.

'SARATHA AND CHHANUYA PORTS—Fifteen miles south-west of the Subarnarekhá are situated the twin ports of Sárathá and Chhánuyá. Each consists of a demarcated portion of the river of the same name; but as these two rivers unite at a short distance from the sea, into which they empty themselves by the same estuary, known as the Pánchpárá, there seems no reason why two ports instead of one should have been constituted. The Sárathá and Chhánuyá rivers are frequented by native rice sloops; the former, being navigable as far as Nalitágarh, eight miles from the sea, and the Chhánuyá as far as Mahádaní, nine miles from the sea, measuring in a direct line. At low tide there are not many inches of water at this mouth. With the rise of the tides, vessels of about three thousand *maunds*, or about a hundred tons burden, contrive to get in. Once over the bar, there is no want of water. Both rivers are deep, slimy *nálás*; and except at high-water, there is much difficulty in landing, owing to the soft, muddy banks. A fourth-class iron buoy had been ordered to be laid down opposite the estuary, to mark the entrance. During the past two years (1873-1875) the imports of Chhánuyá and Sárathá have been *nil;* the exports amounted to £2983 in value in 1873-74, and to £1820 in 1874-75.

'BALASOR PORT.—By far the most important of the District ports is that of Balasor, which consists of the portion of the Burábalang river fronting the town of Balasor. The port is about three-quarters of a mile in length, being situated about seven miles from the coast in a direct line; but the river's course is so sinuous, doubling back upon itself in numerous loops, that the distance by water between the same points is fifteen miles. From Balasor to the sea, the river itself has a fair depth of water; it is at its mouth that the difficulties of navigation begin or end, according as the vessel is bound outwards

or inwards. From that point to the Balasor buoy, laid in three and a half fathoms (low-water springs), at a distance of six miles from the river's mouth, a narrow channel leads between sandbanks on both sides. The bar, or in other words the shallowest part of this channel, is half a mile long, and is a little over two miles from the river's mouth. The entrance has been surveyed annually by Captain Harris, with the result that in spring tides there is only a depth of one foot on the bar at low-water, while high-water gives a rise of thirteen feet. The channel from the Balasor buoy inwards is well buoyed. There is a flagstaff at the mouth, where the tides are signalled. The course up the river is marked by beacons; and an iron barge, to be used as a floating jetty at the port, has recently been obtained. A project for rendering the course of the river shorter and straighter, by cutting through the narrow necks of land that divide the different loops, has long been under discussion. It was at first supposed that this measure might add to the velocity of the tides, and cause the tidal scour to deepen the channel over the bar. It has, however, now been decided that the present state of our engineering knowledge does not enable us to predict with any confidence whether this effect, or one exactly the opposite, would be produced; and the project has, in consequence, been abandoned. A cut was actually made about the year 1863, which succeeded in shortening the course of the river by about a mile. But, unfortunately, no observations were taken of the effect thereby produced upon the entrance.'

Captain Horsburgh, in his *Sailing Directions*, gives the following directions for making the port:—'Balasor River. The entrance is in latitude 21° 28′ N, and a little to the eastward of the meridian of Point Palmyras. From the Point, all the low coast is planted with trees, until within two or three miles of the entrance of the river, which on both sides is destitute of them, having a sandy, barren aspect; by this it may be known, particularly by the small sandhills on the N.E. side. When the Nilgirí hills, situated inland to the westward, are seen, they answer as a good mark for a ship having occasion to proceed to the anchorage. With the extremity of the southernmost, or Long Hill, W. ½ S., the peak of the middle one appearing highest and separated from the others W.N.W. or W. by N. ¾ N., the smallest to the N.E. bearing N.W. by N.—a ship will have a good berth in five fathoms mud, with the entrance of the river about N. by W., off shore five or six miles. The banks here are very flat, the

depths being two and a half and three fathoms about four miles from the land. From the anchorage in five fathoms, the peak of the Nílgirí hills bears W.N.W., distant nineteen miles; and from Balrámgarí, at the river's entrance, it bears W. ½ N., distant fourteen miles. A boat proceeding for Balasor river should carry a compass, and in crossing the bar ought to bring the flagstaff at Balrámgarí, or the Bankshall House, N.N.W.; keeping it on this bearing will lead her to the outer beacons, which are poles placed on each side the entrance of the bar. From hence the channel lies directly towards the S.W. point of the opening of the river, where the passage is marked out by beacons or poles on each side, placed at convenient distances on the extremities of the shoals. At full and change of moon it is high-water about ten o'clock, and the tide rises from twelve to fifteen feet in common springs; but there is not more than two or three feet on the bar at low-water in the dry season. It is, therefore, proper not to attempt to pass over until the last quarter flood, for the sea breaks high upon it during the first quarter flood, particularly during the south-west monsoon.'

Balasor is also a shipbuilding port. 'All the sloops,' continues *The Statistical Reporter*, 'used along the coast for local traffic are built here in dry docks of mud. In 1851, 56 vessels were returned as belonging to Balasor; and in 1853 the number had increased to 167, in spite of a loss of 44 ships in a cyclone in 1851. The present number of vessels registered as belonging to the port of Balasor is 79. The reason of Balasor sloops being fewer in 1876 than in 1853 is the cessation of the manufacture and export of Government salt, which was formerly sent from the Balasor ports to the Salkiah *golás* or warehouses, opposite Calcutta, for storage. During the latter years of the Government salt monopoly, Balasor had a Master-Attendant of its own; and the vigour of the local trade was immensely stimulated by the energetic and business-like way in which the export of Government salt was conducted, entirely in local bottoms, by the Master-Attendant.'

Sloops from the Madras coast, from Ceylon, and from the Laccadive and Maldive Islands, annually resort in large numbers to Balasor port, for cargoes of rice. The port presents a very animated appearance during the cold weather, being generally crowded with these vessels taking in cargoes. The Laccadive and Maldive islanders depend principally upon Balasor District for their annual supply of grain. These sloops bring but little cargo; occasionally

a few cocoa-nuts, coir, and matting. During 1873, 1874, and a part of 1875, a small steamer plied once a week between Calcutta and Balasor. The steamer, which drew about nine feet of water when laden, has now (April 1876) ceased to run, owing mainly to the depression of the Calcutta rice market. A steamer of greater draught than this would not suit the port, and even a draught of nine feet involves much waiting for tides. What is really required is a light-draught sea-going vessel, about 150 feet long, 30 feet beam, to load to 7 feet, with disconnecting paddle wheels to enable her to turn sharp bends, compound engines, small consumption of coal, a speed of twelve knots, with good shelter for native passengers, and cabins for a few first-class ones. The largest native sloops which receive their full cargo in the river are of four thousand *maunds* (about 145 tons) burden. Ships of a larger size anchor at the Balasor buoy, and are loaded from cargo boats.

'In 1873-74 the value of the imports of the Balasor port was £48,302, and of the exports £66,958. In 1874-75 the value of the imports was £61,736, and of the exports £55,098.

'Laichanpur and Churaman Ports.—Measured straight along the coast-line, the port of Láichanpur is twenty-three miles south of the Burábalang or Balasor river. The port of Churáman, again, is five miles south of Láichanpur. These ports are demarcated portions of two *nálás*, at present quite insignificant; and their mouths are now so nearly closed, that to steer a small jolly-boat into them and out to sea again requires careful watching of the tides. These two *nálás* are branches of the same river, the Kánsbáns, which bifurcates at Bírpárá, seven miles from the coast in a straight line. The northern branch, on which the port of Láichanpur is situated, keeps the name of the Kánsbáns; the southern, on which Churáman is situated, is called the Gammaí. It is no matter for surprise that these streams should have silted up; for although during the rains in times of flood the Kánsbáns conveys large volumes of water from the hills to the sea, yet during the rest of the year it dwindles down to a streamlet a few inches in depth, or dries up altogether. The mouths of these *nálás* are so completely concealed by a dense fringe of jungle, that it is almost impossible for a stranger sailing down the coast to discover them. At present, no vessel of a burden exceeding a thousand *maunds*, or forty-five tons, can enter either of them, even at high-water. The rice sloops which nominally receive their cargoes at these ports, in reality load while at anchor several

miles out at sea, opposite their entrance; six miles is no uncommon distance in the case of sloops of three thousand *maunds* burden. The rice is carried from the port to the sloops in small boats. Great facilities are afforded by the extraordinarily soft and yielding nature of the mud bottom of the river. The rice sloops penetrate as near the coast as high-water will allow them to shove their way, and the receding tide leaves the greater part of their hulls resting securely on a soft cushion of mud. Should a storm come on, they have nothing to fear. It is a fact notorious on the coast, that should doubt arise as to the possibility of weathering a dangerous storm, the safest place is to run the ship straight into the bay of Churáman, where the thick, half-liquid mass of mud in solution affords the best possible non-conductor to the violence of the winds and waves.

'Such is the state of these ports at present. Local tradition, however, asserts that within recent times Churáman was the principal port of Orissa, and this is corroborated by references in the old correspondence. The Balasor Collector of Customs in 1809 wrote that "Churáman is considered the most safe and convenient port on the coast of Orissa, and carries on a sea-going trade exceeding that of Balasor." In 1812 the Collector of Customs reported:—"The trade of the Province, except in the article of rice, is very limited. Last year, no less a quantity than 1,100,000 *maunds* of rice was exported from the port of Churáman and rivers contiguous thereto."

'In 1873-74 the value of the imports of the ports of Churáman and Láichanpur, taken together, amounted to £251; and of the exports to £13,831. In 1874-75 the imports were *nil*, the value of the exports being £5834. A fourth-class iron buoy has been ordered to mark the entrance to the port of Churáman. This buoy, when in position, will be a great convenience to persons having occasion to use the port.

DHAMRA PORTS.—'The Dhámrá river is a wide and deep estuary, forming the south boundary of Balasor District. It discharges the united waters of the Mataí, Baitaraní, Bráhmaní, and Kharsuá rivers. The eastern boundary of the Dhámrá port is the Dhámrá Custom Station; and the port includes the navigable channels of all the above rivers, as far as they are affected by tidal waters. These limits embrace Chándbálí, on the Baitaraní; Hánsuá, formerly a great salt emporium, on the Brahmaní; Patámundáí, on the Brahmání, and Aul, on the Kharsuá—the three last being within Cuttack District.

Chándbálí on the Baitaraní has during the past three years assumed a prominent position as a station for coasting steamer traffic, and is rapidly rising in importance. It is, however, little frequented by the native sloops, which wander about the navigable channels leading to the great Dhámrá estuary, taking in cargoes of rice wherever they find it most convenient. The Matai river is more particularly affected by the native craft, as affording unrivalled advantages in its long course through a rice-producing tract.'

The latest Survey Report, dated 10th May 1870, places the Dhámrá first among the navigable rivers of Orissa. The entrance to the port is marked by the Kaniká buoy in twenty-one feet *reduced*, and by Shortt's Tripod beacon on the extreme north-east dry portion of Point Palmyras Reef. The entrance has greatly improved since 1866. The old outer bar with but nine feet of water remains, but a second outer channel with ten feet at lowest tide has opened about a mile to the south. From this to the inner bar no material change in the depth has taken place; but the inner bar, although improved of late, is constantly liable to alterations, and stands in need of re-survey. In 1859 twelve feet were to be found on this bar; in 1866, only three; and in 1870, eight. The water rapidly shoals from a minimum depth of twenty-one feet at the Kaniká buoy to six feet on the Central Sand. On the north of this, however, the new charts show a channel with a minimum of nine feet; and on the south there is another passage, with water nowhere less than ten feet in depth, and in most places from thirteen to sixteen feet. Once through these passages the channels re-unite, and proceed inland with water from twelve to twenty feet, to the Kaniká iron beacon, where twenty-nine feet may be obtained. Proceeding nearly due west, the water again shoals from twenty to eight feet, and again gradually deepens till a depth of thirty feet is reached, in the channel to the north of the eastern extremity of Kálíbhanj Island. After this, the difficulties incident to vessels going up are simply those of river navigation. Ships which can get within the southern outer channel, with its minimum depth of ten feet at low tide, find absolute protection from the monsoon. Notwithstanding its excellence as a harbour, the Dhámrá, owing to its distance from Cuttack or any large centre of industry or population, is not so much frequented by European craft as False Point; but large numbers of native vessels resort to it in connection with the Madras rice trade. At one time, indeed, it was contemplated

to select the Dhámrá as the channel by which the whole canal system of Orissa should debouch upon the sea. This was before the formation of the East Indian Irrigation Company, which, after a most careful inquiry, wisely decided upon False Point as their basis of operations on the seaboard. Horsburgh treats Point Palmyras, at the mouth of the Dhámrá, only as a beacon for making the Húglí; and cautions vessels with regard to the necessity of hauling out into twelve or fourteen fathoms, if they sight the eastern limit of the bank. He gives the rise of tide as from ten to twelve feet in the springs, and from seven to eight feet in the neaps. The latest Survey Report, dated 13th May 1870, returns the tidal range at ten feet, with variations from a minimum of 6 feet 10 inches to a maximum of 10 feet 6 inches. It must be remembered that the depths in the channels given above are the reduced minimum at the lowest possible tide, so that the harbour, like all others along the Orissa coast, is practically available during the flood-tide to vessels drawing considerably more water than mentioned above. Ships drawing from ten to even eighteen feet frequent the harbour with perfect safety.

CHANDBALI, on the Baitaraní, is within the limits of the Dhámrá port, although situated a considerable distance from the sea coast. This place has risen to importance only within the last three or four years, and is now the centre of a rapidly growing trade. The channel of the Dhámrá and Baitaraní, as far as Chándbálí, has been completely marked out with buoys and beacons, with mooring buoys in mid-channel at Chándbálí. The article in *The Statistical Reporter* above cited thus describes the port:—'The Government has established a police station and staging bungalow at Chándbálí, and has acquired 123 acres of land, upon which broad roads have been laid out; a Customs office and warehouse is under construction; and 33 plots, commanding a river frontage, have been leased out to the leading merchants and shipowners. The credit of the foundation, so to speak, of Chándbálí is due to Captain MacNeill, who first discovered its adaptability for the purposes of passenger traffic; and who owns the pilgrim rest-houses, built in the form of a square, and situated in a plot of Government land which has been allotted to him. Two miles above Chándbálí, but on the Cuttack side of the river, is seated Mahurígáon, which has been for two years a regular halting station for steamers owned by a native firm in Calcutta. Besides Chándbálí and Mahurígáon,

there are many points on the Baitaraní river affording an equally secure, and even a deeper anchorage. But the banks are very low, and Chándbálí appears to be the only spot containing high land of any considerable extent suitable for building purposes. The station is situated on a high but narrow sand ridge, which trends from the north to the south in a direction parallel to the sea coast for a distance of many miles, and terminates abruptly on the northern bank of the river. At present (1876) three steamers ply regularly between Calcutta and Chándbálí, and another between Calcutta and Mahurígáon, belonging to a Calcutta native firm. With the exception of a very few native craft, Chándbálí and Mahurígáon trade only with Calcutta. The trade in commodities is supplemented by a passenger traffic, which in 1874-75 amounted to 32,000 persons either way, and which is increasing steadily and considerably. A portion of the passengers are pilgrims on their way to and from Jagannáth. The major part of the pilgrim passengers are up-country people of the middle class, who can afford to pay their fare by rail to Calcutta, and by steamer to Orissa. There is also a strictly local passenger traffic of Uriyás, who resort to Calcutta in considerable numbers in search of domestic service as palanquin bearers, etc.

'The trade of Chándbálí and Mahurígáon is mainly a steamer traffic, comprising nearly the whole of the items which make up the import and export trade of the District. On the other hand, the traffic of the rest of the Dhámrá port is carried on exclusively in sailing ships. It is almost entirely a rice trade, the exports comprising little else, and the imports being next to nothing. The marked distinction between these two divisions of the trade of Dhámrá port is apparent from the following statement:—In 1873-74 the value of the Chándbálí and Mahurígáon imports amounted to £122,143, while that of Dhámrá port proper (excluding Chándbálí and Mahurígáon) was only £619; the exports from Chándbálí and Mahurígáon, in the same year, amounted to £61,436, and from Dhámrá proper to £15,520. In 1874-75 the value of the Chándbálí and Mahurígáon imports was £200,858, and of Dhámrá proper only £89; the value of the Chándbálí and Mahurígáon exports was £139,554, and that of Dhámrá £11,407.' A detailed statement of the general sea-borne as well as the inland trade of Balasor District will be found in a subsequent section of this Statistical Account (pp. 337-344).

Utilization of the Water Supply.—Notwithstanding the

abundant water supply, there is no great inland river traffic in Balasor. Up to two or three years ago, the sea-going trade was wholly in the hands of natives of the Madras coast, and of Musalmáns from Calcutta and Eastern Bengal. Non-navigable rivers are nowhere used as a motive power for turning machinery, nor are they anywhere applied for purposes of irrigation, except on a very small scale along the Sálandí, for patches of tobacco, and for vegetable gardens near villages. The bed of the Sálandí is utilized to a small extent for reed plantations; and the long-stemmed variety of rice, known as *ravánd*, is successfully grown in a depth of seven or eight feet of water in the hollow cup-lands (*páts*).

EMBANKMENTS intersect the District in every direction. The principal of these are the Bhográi and Salsá Pát on the lower reaches of the Subarnarekhá, and the great Nuná or Salt embankment, which extends for about fifteen miles along the sea face of Ankurá *parganá*, with a view to keeping out the sea. It is built across the mouth of a canal which united the Mataí and Gammaí rivers, to prevent the tide from forcing its way into that channel, as they formerly caused great damage to the crops on either side. Although valuable as a defence against the ocean, this embankment intercepts the natural drainage from the land; and when the Gammaí and the Kánsbáns come down in flood, it has to be pierced in order to let the water through. In general, the embankments are intended to protect the country from the rivers during the rains. The success of the Balasor embankments as a preventive against flood will be shown in a subsequent section of this Account, which treats of Natural Calamities.

FISHERIES.—Fish are abundant along the sea coast, and in the numerous tidal creeks and estuaries, but there are no fishing towns or villages, properly so called. Along the rivers in the interior of the District there is the same complaint of the scarcity of fish noticed in the Statistical Account of Cuttack District (pp. 54-57), owing to the indiscriminate destruction of fry and breeding fish, and to the use of traps and nets with so small a mesh as to retain any fish, however minute. The principal fishing castes are Keuts and Gokhás, who fish in rivers, tanks, and ditches all over the District. The Census Report returns the number of Hindu fishing and boating castes of Balasor at 54,416 persons, or 7·3 per cent. of the Hindu population, who form 95·9 per cent. of the total population of the District.

NATURAL PRODUCTS.—Laterite is used for building, and the honeycombed variety was largely employed in former times for temples. All ancient statues and idols are carved in chlorite, obtained from the hills on the western boundary of the District. There are no forests or jungle products in Balasor, nor any wide pasture lands.

WILD ANIMALS.—The wild elephant, very rare; tiger, rare; wild buffalo, common; black bear, chiefly in the north of the District; leopard, hyena, elk, *nílgái*, spotted deer, antelope, hog-deer, mouse-deer, wild dog, wild cat, civet cat, and hare. Among birds—the peacock, jungle-fowl, black partridge, red partridge, quails of two sorts, snipe, golden plover, wild ducks, and wild geese. Among fresh-water fish, the following twenty-three varieties are worthy of notice:—*Maurálí*, *karandí*, *gorí*, *chengá*, *saul*, *mágur*, *singi*, *baliá*, *chingrí*, *khásmerá*, *rui*, *bhakurá*, *pheli*, *merkáli*, *kantiyá*, *kau*, *mirgal*, *báimtorí*, *bártorí*, *kharátorí*, *khayrá*, *kalbaus*, and *pahárá*. Sea-water fish swarm up the tidal rivers, and form an important article of food. The following nineteen varieties of salt-water fish are caught in the estuaries of Balasor District—*Ilis* or *hilsá*, *rupápátiyá*, *papárí*, *silá*, *masálá*, *aliárí*, *koárí*, *goji-karmá*, *taisí*, *bhekti*, *tayárí*, *phirki*, *bahál*, *gochiyá*, *sásútankhái*, *láhántá*, *makundí*, *gangátárá*, and *randolá*.

POPULATION.—A rough Census of the inhabitants of Balasor District was taken in 1840 for the Survey officers, which gave an estimated population of 651,003 souls. In 1865 the population of the District was estimated at 732,279. After the famine of 1866, the surviving population was estimated at 485,113, based on the calculation of 5·06 persons to each house. A general Census of the District was taken by authority of Government between the 15th and 22d December 1871, the results of which disclosed a total population of 770,232 persons, dwelling in 3266 villages, and inhabiting 138,913 houses; average density of the population, 373 per square mile; average number of inhabitants per village, 230; average number of persons per house, 5·5. An account of the method adopted in carrying out the enumeration will be found in my Statistical Account of Cuttack District (pp. 60-63). The table on the opposite page, exhibiting the area, population, etc. of each police circle (*thánd*) of Balasor District, is reproduced *verbatim* from the General Census Report of Bengal.

ABSTRACT OF POPULATION, AREA, ETC. OF EACH POLICE CIRCLE (*thánd*) IN BALASOR DISTRICT, 1872.

Subdivision.	Police Circle (*thánd*).	Area in Square Miles.	Number of Villages, *Mauzás*, or Townships.	Number of Houses.	Total Population.	Averages calculated by the Census Officers.				
						Persons per Square Mile.	Villages, *Mauzás* or Townships per Square Mile.	Persons per Village, *Mauzá*, or Township.	Houses per Square Mile.	Persons per House.
HEADQUARTERS SUBDIVISION,	Balasor,	228	346	17,382	90,048	395	1·52	260	76	5·2
	Bastá,	189	318	11,617	60,035	318	1·68	189	61	5·2
	Jaleswar,	140	167	8,549	45,723	327	1·19	274	61	5·3
	Báliápal,	204	419	12,582	69,416	340	2·05	166	62	5·5
	Soro,	396	822	26,892	157,444	398	2·08	192	68	5·9
	Subdivisional total,	1157	2072	77,022	422,666	365	1·79	204	67	5·5
BHADRAKH SUBDIVISION,	Bhadrakh,	287	489	26,418	146,679	511	1·70	300	92	5·6
	Básudebpur,	194	230	9,095	52,038	268	1·19	226	47	5·7
	Dhámnagar,	234	315	20,300	114,299	488	1·35	363	87	5·6
	Mutoh,	194	160	6,078	34,550	178	0·82	216	31	5·7
	Subdivisional total,	909	1194	61,891	347,566	382	1·31	291	68	5·6
	District total,	2066	3266	138,913	770,232	373	1·58	236	67	5·5

POPULATION CLASSIFIED ACCORDING TO SEX, RELIGION, AND AGE.—The total population of Balasor District consisted in December 1871 of 770,232 persons; namely, 379,077 males, and 391,155 females. The proportion of males in the total District population was 49·2 per cent.; average density of the population, 373 persons to the square mile. Classified according to religion and age, the Census gives the following results:—Hindus—under twelve years of age, males 140,078, and females 116,706; total, 256,784: above twelve years, males 222,917, and females 258,695; total, 481,612. Total Hindus of all ages, males 362,995, and females 375,401; grand total, 738,396, or 95·9 per cent. of the District population: proportion of males in total Hindus, 49·2 per cent. Muhammadans—under twelve years of ages, males 3709, and females 2927; total, 6636: above twelve years of age, males 5619, and females 6623; total, 12,242. Total Muhammadans of all ages, males 9328, and females 9550; grand total, 18,878, or 2·4 per cent. of the District population; proportion of males in total Muhammadans, 49·4. Buddhist—male 1. Christians—under twelve years of age, males 112, and females 143; total, 255: above twelve years, males 129, and females 146; total, 275. Total Christians of all ages, males 241, and females 289; grand total, 530, or ·1 per cent. of the District population; proportion of males in total Christians, 45·5 per cent. Other denominations not separately classified, consisting of aboriginal tribes and races—under twelve years of age, males 2245, and females 1672; total, 3917: above twelve years, males 4267, and females 4243; total, 8510. Total 'others' of all ages, males 6512, and females 5915; grand total, 12,427, or 1·6 per cent. of the total District population; proportion of males in total 'others,' 52·4 per cent. Population of all denominations—under twelve years of age, males 146,144, and females 121,448; total, 267,592: above twelve years, males 232,933, and females 269,707, total, 502,640. Total population of all ages, males 379,077, and females 391,155; grand total, 770,232; proportion of males in total District population, 49·2 per cent.

The percentage of children not exceeding twelve years of age in the population of different religions is returned in the Census Report as follows:—Hindus—male children 19·0, and female children 15·8 per cent.; proportion of children of both sexes, 34·8 per cent. of the Hindu population. Muhammadans—male children 19·6, and female children 15·5 per cent.; proportion of children of both sexes

35·1 per cent. of the Muhammadan population. Christians—male children 21·1, and female children 27·0 per cent.; proportion of children of both sexes, 48·1 per cent. of the Christian population. Other denominations—male children 18·1, and female children 13·5 per cent., proportion of children of both sexes, 31·6 per cent. of the total 'other' population. Population of all denominations—male children 19·0, and female children 15·8 per cent.; proportion of children of both sexes, 34·8 per cent. of the total District population. The small proportion of girls to boys, and the excessive proportion of females above twelve years of age to males of the same class, is probably due to the fact that natives consider girls have attained womanhood at a much earlier age than boys reach manhood. The proportion of the sexes of all ages, viz. males 49·2 per cent., and females 50 8 per cent., is probably correct. The excess of females over males is explained by the fact that Balasor forms a source of labour supply for Calcutta and other Districts.

INFIRMITIES.—The number and proportion of insanes, and of persons afflicted with certain other infirmities in Balasor District, is thus returned in the Census Report:—Insanes—males 44, and females 9; total, 53, or ·0069 per cent. of the District population. Idiots—males 35, females 7, total, 42, or ·0055 per cent. of the District population. Deaf and dumb—males 115, and females 19; total, 134, or ·0174 per cent. of the District population. Blind—males 150, and females 118; total, 268, or ·0348 per cent. of the population. Lepers—males 177, and females 17; total, 194, or ·0252 per cent. of the District population. The total number of male infirms amounted to 521, or ·1374 per cent. of the total male population; number of female infirms 170, or ·0434 per cent. of the total female population. The total number of infirms of both sexes was 691, or ·0897 per cent. of the total District population.

I omit the returns of the population according to occupation, as they do not stand the test of statistical criticism.

ETHNICAL DIVISION OF THE PEOPLE.—Balasor, the northernmost of the Orissa Districts, approaches nearest to Bengal, both in its geographical position and its population. The inhabitants, however, practically consist of the same races as in Puri District, except that the Bengali element is stronger, the Musalmán more respectable, and the Telingá much less numerous. There are only two Telingá

landholders in the District,—petty proprietors, whose aggregate Government rental does not exceed £80 a year, but who are rich in merchandise. On the other hand, by far the larger proprietors are wealthy Bengalí gentlemen, whose families have for some time been settled in Orissa, but who live in, or frequently visit, Calcutta. The Musalmáns hold ninety-three small estates, and pay a total land revenue of £1584 a year. The descendants of the Marhattás are few in number, and scarcely distinguishable from the native population, except by their race name of Bargís.

The Census Report ethnically divides the population as follows:—Europeans and non-Asiatics, 37; Eurasians, 45; aboriginal tribes, 3699; semi-Hinduized aboriginals, 76,294; Hindu castes and people of Hindu origin, 671,279; Muhammadans, 18,878: total, 770,232. I take the following details from Mr. C. F. Magrath's separate District Census Compilation for Balasor. The list of Hindu castes will be reproduced on subsequent pages, but arranged in a different order to that given here, as far as possible according to the rank which they hold in local public esteem:—

Nationality, Tribe, or Caste	Number
I.—NON-ASIATICS.	
European—	
English,	18
Irish,	1
Scotch,	2
French,	1
German,	2
Belgian,	2
Unspecified,	5
Total,	31
American—	
West Indian,	1
Unspecified,	5
Total,	6
Total of Non-Asiatics,	37
II.—MIXED RACES.	
Eurasian,	45

Nationality, Tribe, or Caste.	Number
III.—ASIATICS.	
A. Natives of India and British Burmah.	
1. *Aboriginal Tribes.*	
Gond,	6
Savar,	446
Uráon,	93
Bhumij,	1,675
Sáont,	288
Kharriá,	1
Kharwár,	11
Kol,	3
Santál,	1,176
Total,	3,699
2. *Semi-Hinduized Aboriginals.*	
Pán,	36,546
Kandárá,	18,485
Kodmal,	3,293
Baurí,	388
Kadal,	5,484
Khaira,	79

Nationality, Tribe, or Caste.	Number.
2. Semi-Hinduized Aboriginals—continued.	
Karangá,	590
Ghusuriyá,	373
Kaorá,	75
Dom,	1,397
Pási,	49
Shiulí,	1,217
Bhuiyá,	61
Mihtár,	3,320
Chámár,	4,383
Bágdí,	427
Bind,	1
Musáhar,	2
Bediyá,	18
Báthudi,	115
Total,	76,294
3. Hindus.	
(i.) Superior Castes.	
Bráhman,	85,432
Ganak,	4,683
Mastán,	16,087
Rájput,	2,053
Khandáit,	135,671
Khandwál,	128
Mahánáik,	156
Total,	244,200
(ii.) Intermediate Castes.	
Káyasth—	
(1) Bengalí,	2,240
(2) Karan,	21,352
(3) Others,	131
Baidyá,	88
Bhát,	375
Shagirdpeshá,	3,373
Total,	27,559
(iii.) Trading Castes.	
Bais Baniyá,	5,628
Kamtí,	4
Total,	5,632
(iv.) Pastoral Castes.	
Goálá (Ahir),	101
,, (Gaur),	56,548
Gárerí,	123
Total,	56,772

Nationality, Tribe, or Caste.	Number.
(v.) Castes engaged in preparing Cooked Food.	
Halwái,	1,001
Máyrá,	39
Gánrár,	10,008
Total,	11,048
(vi.) Agricultural Castes.	
Ráju,	33,034
Chásá,	24,278
Golá,	22,572
Támbulí,	7,112
Sadgop,	2,097
Dográ,	1,666
Málí,	1,305
Agurí,	808
Kultá,	646
Kurmí,	222
Koerí,	62
Paridá,	12
Súd,	4
Total,	93,818
(vii.) Castes engaged chiefly in Personal Service.	
Dhobá,	16,675
Hajjám or Nápit,	13,733
Kahár,	37
Dhánuk,	415
Amanth,	10
Lodhá,	3
Total,	30,873
(viii.) Artisan Castes.	
Kámár, etc. (blacksmith),	9,704
Sikalgir (cutler),	29
Kansárí and Thathárí (brazier),	1,980
Sonár (goldsmith),	4,297
Pathuriá (stone-cutter),	10
Barhái (carpenter),	5,876
Chitrakár (painter),	3
Kumbhar (potter),	10,589
Laherí (lac-worker),	30
Kachorá (glass-maker),	1,018
Sankhárí (shell-cutter),	408

Nationality, Tribe, or Caste.	Number.
(viii.) Artisan Castes—*continued.*	
Darzi (tailor),	156
Sunrí (distiller),	1,757
Telí (oilman),	37,749
Total,	73,606
(ix.) Weaver Castes.	
Tántí,	38,460
Pátuá,	5,422
Tulábhiná,	482
Matibangsí,	362
Suklí,	235
Hangsí,	97
Dutálí,	14
Juláhá,	6
Total,	45,078
(x.) Labouring Castes.	
Beldár,	2
Nuniyá,	7
Korá,	288
Matiyál,	211
Total,	508
(xi.) Castes occupied in selling Fish and Vegetables.	
Nikárí,	1,360
(xii.) Boating and Fishing Castes.	
Keut,	34,442
Gokhá,	17,213
Ujiyá,	1,872
Tior,	682
Dandachatra mánjí,	19
Chalak mánjí,	171
Machuá,	17
Total,	54,416

Nationality, Tribe, or Caste.	Number.
(xiii.) Dancer, Musician, Beggar, and Vagabond Castes.	
Kasbí,	419
Chukár,	172
Kheltá,	863
Mangtá,	32
Total,	1,486
(xiv.) Persons enumerated by Nationality only.	
Hindustání,	2
Marhattá,	23
Sikh,	6
Telingá,	233
Total,	264
(xv.) Persons of Unknown or Unspecified Castes,	2,710
Grand Total of Hindus,	649,330
4. *Persons of Hindu Origin not recognising Caste.*	
Vaishnav,	18,651
Sanyásí,	1,652
Jugí,	1,150
Nánakshálií,	47
Buddhists,	1
Native Christians,	448
Total,	21,949
5. *Muhammadans.*	
Mughul,	226
Páthán,	5,378
Sayyid,	1,011
Shaikh,	10,727
Unspecified,	1,536
Total,	18,878
Grand Total,	770,232

Emigration.—Great numbers of the Gaur caste, corresponding with the Goálás of Bengal and Behar, go to Calcutta as palanquin bearers, punkah-pullers, and domestic servants. But they never take their families with them, and always return to spend their

savings in their native villages. There is no immigration into Balasor District.

HINDU CASTES.—The following is a list of 99 Hindu castes met with in Balasor District, arranged, as far as possible, in the order in which they rank in local public esteem, and showing their occupations, etc. The figures, indicating the number of each caste, are extracted from Mr. C. F. Magrath's District Census Compilation for Balasor.

HIGH CASTES.—(1) Bráhman. The Bráhmans hold an unusually important position in Balasor. Their first settlement is conjectured with some reason to have been about 500 A.D., when, according to the legend, a pious monarch of Orissa imported 10,000 Bráhmans from Kanauj. It is the old story which is everywhere current throughout Lower Bengal. The ancient Orissa Bráhmans are said to have lost their caste; and the new colony from the north settled in Jájpur, literally the City of Sacrifice, then the capital of the Province, and still an important town, recently transferred to Cuttack District. They are subdivided into two great branches (*srenis*)—the Purí, or southern branch, and the Jájpur, or northern branch. The origin of the southern branch, as stated in the Statistical Account of Purí District, is ascribed to the 450 Bráhman colonies which Rájá Anang Bhím Deo founded in Purí between 1175 and 1202 A.D. From about that date the existence of the two distinct classes is an historical fact, but they are separated by no hard and fast geographical line, and are now found side by side all over Orissa. They both claim descent from the pure Vaidik Bráhmans, and are classified according to the particular Veda which they profess to study. Each class is divided into septs (*gotras*), for a full list of which in ancient times, forty-nine in number, see Max Muller's *History of Sanskrit Literature*, pp. 380–385, ed. 1859. Each sept is subdivided into families distinguished by surnames (*upádhis*). The southern, or Puri branch, is divided into three classes,—the Rig-veda, the Yajur-veda, and the Sáma-veda. Of the Rig-veda class, the most important sept is the Basishtha, which is subdivided into two families, the Sharangí and the Mahápátra. The Yajur-veda is divided into the Bharadwáj sept, including the Sharangí, Misra, and Nandá families; the Atreya sept with the great Rath family; the Haritásá sept with the Mahápátra and Dás families; the Kauchhásá and Ghritakáisik septs with the Dás family; the Mudgala sept with the Satpathí family; the Batsásá sept with the Satpathí, Dás,

and Achárjya families; the Kátyáyana sept with the Misrá and Shaṛingí families; and the Kapinjala sept with the Dás family. The Sámaveda class is divided into the Kásyapa sept, including the Nanda family; the Dharagautama sept with the Tripáthí family; the Gautámá sept with the Udgátá or Utá family; the Parásar sept with the Dibedí or Dubaí family; and the Kaundinya sept with the Tripáthí or Tihárí family. The northern or Jájpur branch of Bráhmans is also divided into three classes,—the Rig-veda, Yajur-veda, and Atharva-veda. The Jájpur Rig-veda Bráhmans do not subdivide into well-marked septs. The Yajur-veda class is divided into the Kátyáyana sept, including the Pandá family; the Sándilya and Krishnátreya septs with the Pandá and Dás families; the Bharadwáj sept with the Pandá family; the Barsháǵana and Kaphal septs with the Misrá family; and the Gautámá sept with the Kar family. Of the Atharva-veda class the only sept is the Angirásá, including the Upádhyáya and Pandá families. The southern branch is the more esteemed, probably from its close connection with Jagannáth, although teaching is considered a more honourable vocation for a Bráhman than service in the temple. They all profess to spend their lives in performing their strict caste duties, and do not engage in business, except as men of letters, as Government officials, and in the higher branches of land management. Many of them, especially the heads of Sásans, or Bráhman villages, assume the title of *páṇigráhí* (landholder). Besides the Vaidik, or high Bráhmans, there is also a large class of Laukik, or worldly Bráhmans, who engage in business, and are less esteemed. They bear the sept names of Balrám-gotrí, Mastání, and Paniyárí, and are as numerous as the sacerdotal class. They are simply peasants, and cultivate nearly the whole of the Múlgáon *parganá*, with a large part of many others. The Census Report returns the number of Bráhmans in Balasor District at 85,432, besides 16,077 returned as Mastání Bráhmans, making a total of 101,509.

(2) Kshattriyas or Rájputs nominally come next to the Bráhmans in social rank. Strictly speaking, however, there is not a single Kshattriya of pure descent in the Province, although the rank is claimed by many. The Census Report does not notice the Kshattriyas at all, but puts down 2053 under the heading of Rájputs.

(3) Karans. Practically the Karans rank next to the Bráhmans. They correspond to the position of the Vaisya in the ancient system

of castes; but as regards their occupation and habits they are simply the Orissa counterpart of the Káyasth, or writer caste, in Bengal. They do not, however, intermarry with the latter, nor eat with them, but they have, as a rule, no objection to drinking water offered by a Káyasth to them. Mr. Beames, the Collector of Balasor, has noticed a similar peculiarity in certain of the castes of Behar. The Bhuinhár may eat with a Rájput only such food as is usually consumed on a journey or in a hurry; for example, parched rice or peas. Such customs seem to indicate that though the classes in question may not eat together when at leisure to attend to the rules of caste, yet that, owing to their close relationship, these rules may be relaxed on an emergency, as on a journey or in war. Even the parched grain, however, should not be placed in a brass vessel, or in any of the dishes of regular life, but must be eaten out of the hand or on a leaf. The principal divisions of the Orissa Karans are the Krishnátreya, the Sankhyáyana, the Bharadwáj, and the Nágas. These families all bear the surnames of Dás or Máhánti; but those whose ancestors were the principal officers of the native Rájás enjoy the title of Patnáik, or Chief Reader. The Rájá of the Tributary State of Athgarh is said to be the head of the Karans in Orissa. The Census Report returns the number of Karans in Balasor at 21,352, and of Bengalí and other Káyasths, who correspond to the Orissa Karans in occupation, social position, etc., at 2371.

(4) Khandáit. The next caste in rank and importance is the Khandáit, properly spelt Khandáyat, literally, the Swordsman, from the Uriyá *khandá*, a sword. Although a numerous and well-defined body, the Khandáits do not appear to be really a distinct caste. The ancient Rájás of Orissa kept up large armies, and partitioned the lands on strictly military tenures. These armies consisted of various castes and races, the upper ranks being officered by men of good Aryan descent, while the lower ones were recruited from the low castes alike of the hills and the plains. On the establishment of a well-defined caste system, such troops took their caste from their occupation, and correspond to the military class in the fourfold division in Northern India; but with this difference, that in Northern India the military class consists of an ethnical entity, whereas in Orissa the Khandáits exhibit every variety of type, from the high Aryan of good social position, to the semi-aboriginal mongrel taken from the dregs of the people. They have

their septs (*gotras*) like the other castes, named after the ancient Rishis of Northern India; but these distinctions are modern, and they are really divided into Uriyás and Chásás. The former is the title of those who live in, or came from, Districts where the population is not exclusively Uriyá, such as the hill country or the adjoining District of Midnapur. Chásá is the ordinary designation of the native Khandáits in Orissa, where it would be no distinction to call a man an Uriyá. As explained in my Statistical Account of Cuttack District (p. 72), the Khandáits are now, for the most part, hardly to be distinguished from ordinary agriculturists. The Census Report returns the number of Khandáits in Balasor at 135,671, thus making them by far the most numerous caste or class in the District. (5) Khandwál; a subdivision of Khandáits; 128 in number. (6) Mahánáik; also a subdivision of Khandáits; 156 in number.

(7) Baidyá; physicians; 88 in number. (8) Ganak or Náyak; astrologers, fortune-tellers, etc.; 4683 in number. They claim to be Bráhmans who have lapsed from purity by indiscriminate acceptance of alms, and indeed wear the sacred thread. In Orissa, however, they are held in great contempt, and are reckoned so impure, that when they enter a house the mats are taken up before they may sit down. (9) Bhát; messengers, heralds, and genealogists; 375 in number. These also claim to be lapsed Bráhmans, and wear the sacred thread, but their title to any kind of sanctity is not usually recognised. (10) Shagird-peshá. These are said to be the offspring of low-caste women by Karan, Bhát, and sometimes (though rarely) Bráhman fathers. Number in Balasor District, 3373. (11) Bais-baniyá; merchants and traders; a caste which refuses to eat food cooked by Bráhmans; 5628 in number. (12) Kumtí; a caste of Madras traders; 4 in number.

Respectable Sudra Castes.—The respectable Súdra castes, nineteen in number, come next in rank. These are—(13) Nápit or Bhandárí; barbers; a respectable caste everywhere throughout Bengal, but held in higher esteem in Orissa than elsewhere (*vide* Statistical Account of Cuttack District, p. 73); 13,733 in number. (14) Kámár; blacksmiths; 9704 in number. (15) Kumbhar; potters; 10,589 in number. (16) Kánsárí and Thatárí; braziers and coppersmiths; 1980 in number. (17) Sadgop; the highest of the cultivating castes; 2097 in number. (18) Támbulí; growers and sellers of betel leaf, also traders and money-lenders; 7112 in number. (19) Málí; gardeners, flower-sellers, etc.; 1305 in number. (20) Telí

or Tílí; oil pressers and sellers, also grain merchants and traders; 37,749 in number. (21) Chásá; cultivators, who call themselves Khandáits, apparently for the same reason that the Khandáits or ancient peasant militia of Orissa, now hardly to be distinguished from ordinary cultivators, are known as Chásás; 24,278 in number. The other agricultural castes, who are nearly all subdivisions of Chásás, rank almost on an equality. They are—(22) Ráju; 33,034 in number. (23) Golá; 22,572 in number. (24) Kultá; 646 in number. (25) Kurmí; 222 in number. (26) Koerí; 62 in number. (27) Paridá; 12 in number. (28) Súd or Súdra; 4 in number. (29) Agurí; 808 in number. (30) Gaur; the great cow-keeping and pastoral caste of Orissa, corresponding to the Goálás of Bengal. The Orissa Gaurs are subdivided into two classes—those who confine themselves solely to their pastoral pursuits, and those who also occupy themselves as palanquin bearers. These latter are held in somewhat lower esteem. Number of both classes in Balasor, 56,548. (31) Ahir Goálá; the Bengal pastoral caste; number in Balasor, 101. (32) Garerí; up-country or Behar pastoral caste; 123 in number. (33) Dográ, post runners, messengers, and agriculturists; 1666 in number.

INTERMEDIATE SUDRA CASTES.—(34) Halwáí; sweetmeat makers and confectioners; 1001 in number. (35) Kahár; an up-country caste principally employed as domestic servants; 37 in number. (36) Sankhárí; shell-cutters and makers of shell bracelets; 408 in number. (37) Vaishnav; not a caste, but a class of Hindus who profess the teachings inculcated by Chaitanya, a Vishnuvite religious reformer of the sixteenth century, whose principal doctrine was the denial of caste and the affirmation of the equality of all men in the eyes of their Maker. All ranks belong to the sect, a great proportion being religious mendicants. Number in Balasor, 18,651. An account of Chaitanya and his religious tenets will be found in my Statistical Account of Purí District (vol. xix.). (38) Sanyásí; not a caste, but a sect of Sivaití religious ascetics and mendicants, who also renounce caste; 1652 in number. (39) Jugí; another sect of Sivaití caste-renouncing religious mendicants and ascetics; 1150 in number. (40) Nánakshálí; followers of Nának Sháh, the founder of the Sikh religion, which also teaches denial of caste; 47 in number. (41) Máyrá; sweetmeat makers; 39 in number. (42) Gánrár; preparers and sellers of parched grain and other cooked vegetable food; 10,008 in number.

Low Castes.—The following are low castes:—(43) Dhobá; washermen; 16,675 in number. (44) Lodhá; domestic servants in respectable families; 3 in number. (45) Dhánuk; employed in personal or domestic service; 415 in number. (46) Amánth; employed in personal or domestic service; 10 in number. (47) Darzí; a Hindu caste of tailors peculiar to Orissa and Midnapur; 156 in number. (48) Tántí; weavers; 38,460 in number. (49) Matibansí Tántí; a sept of the fore-mentioned caste, who are said to have abandoned their hereditary occupation, and to be generally employed as writers or teachers; 362 in number. (50) Sikalgir; probably not a separate caste, but a class of Kámárs, who occupy themselves in polishing metals and arms; 29 in number. (51) Sonár; goldsmiths and jewellers; 4297 in number. (52) Pathuriá; stone-cutters; 10 in number. (53) Barhái; carpenters; 5876 in number. (54) Chitrakár; painters; 3 in number. (55) Laherí; lac-workers; 30 in number. (56) Kachorá; glass-makers; 1018 in number. (57) Sunrí; wine sellers and distillers; 1757 in number. (58) Patuá; weavers; 5422 in number. (59) Tulábhiná; cotton carders and spinners; 482 in number. (60) Suklí; weavers; 235 in number. (61) Hánsí; weavers; 97 in number. (62) Dutálí; weavers; 14 in number. (63) Juláhá; weavers; 6 in number. (64) Korá; earth-workers and diggers; employed as labourers upon embankment works; 288 in number. (65) Matiyál; labourers and diggers; 211 in number. (66) Keut; fishermen; 34,442 in number. (67) Gokhá; fishermen; 17,213 in number. (68) Ujiyá; fishermen; 1872 in number. (69) Tior; fishermen; 682 in number. (70) Nuníyá; salt makers and labourers; 7 in number. (71) Beldár; labourers; 2 in number. (72) Nikárí; sellers of fish and vegetables; 1360 in number. (73) Dandachatra mánji; boatmen by caste, but whose occupation it is to carry the umbrella over the head of Rájás or other important personages; 19 in number. (74) Chalak manji; boatmen; 171 in number. (75) Machuá; fishermen; 17 in number. (76) Kasbí; prostitutes; 419 in number. (77) Chukár; the offspring of prostitutes; the males are generally panders and sometimes musicians, the females being brought up to the trade of their mothers. (78) Kheltá; bird-catchers, jugglers, beggars, thieves, etc.; 863 in number. (79) Mangtá; also a vagabond caste; 32 in number.

The Semi-Aboriginal Castes, as returned in the Census Report, are twenty in number, as follow. Except where otherwise

mentioned, they are principally employed either as agricultural or ordinary day-labourers:—(80) Pán; 36,546 in number. (81) Kandárá; weavers; 18,485 in number. (82) Kodmál; 3293 in number. (83) Baurí; woodcutters, collectors of jungle produce, etc.; 388 in number. (84) Kadál; 5484 in number. (85) Khairá; swineherds; 70 in number. (86) Karangá; 590 in number. (87) Ghusuriyá; swineherds; 373 in number. (88) Káorá; swineherds; 75 in number. (89) Dom; mat makers, etc.; 1397 in number. (90) Pásí; makers of toddy from palm juice; 49 in number. (91) Siulí or Siál; makers of palm-juice toddy, and of fans from the leaves of the tree; 1217 in number. (92) Bhuiyá; a jungle tribe belonging to the Tributary States; 61 in number. (93) Mihtár; sweepers, etc.; 3320 in number. (94) Chámár; shoemakers and leather dealers, skinners, etc.; 4383 in number. (95) Bágdí; 427 in number. (96) Bind; 1 in number. (97) Musáhar; 2 in number. (98) Bediyá; a wandering, gipsy-like, vagabond tribe; 18 in number. (99) Bathudí; 115 in number.

ABORIGINAL TRIBES.—A more or less detailed description of each of the Orissa aboriginal tribes will be found in my Statistical Account of the Tributary States (vol. XIX.), to which place the subject more properly belongs. The tribes met with in Balasor District are the following.—(1) Gond; 6 in number. (2) Savar; 446 in number. (3) Uráon; 93 in number. (4) Bhumij; 1675 in number. (5) Sáont; 288 in number. (6) Kharriá; 1 in number. (7) Kharwár; 11 in number. (8) Kol; 3 in number. (9) Santál; 1176 in number.

RELIGIOUS DIVISION OF THE PEOPLE.—The great bulk of the population (95·9 per cent.) are Hindus, with a small number of Muhammadans, Christians, and of hill tribes and aboriginal people still professing their primitive forms of faith. According to the Census Report, the Hindus of Balasor District number 362,995 males and 375,401 females; total, 738,396, or 95·9 per cent. of the total population: proportion of males in total Hindus, 49·2. The Muhammadans are returned at 9328 males and 9550 females; total, 18,878, or 2·4 per cent. of the population: proportion of males in total Musalmáns, 49·4 per cent. Only 1 Buddhist is returned as dwelling in the District. The Christian community numbers 241 males and 289 females; total, 530, or ·1 per cent. of the population: proportion of males in total Christians, 45·5 per cent. Other religious denominations not separately classified, consisting of aboriginal tribes who still retain their ancient forms of faith—males

6512, and females 5915; total, 12,427, or 1·6 per cent. of the population: proportion of males in total 'others,' 52·4 per cent.

THE HINDUS, as above shown, form the great majority of the population, numbering, according to the Census, 362,995 males and 375,401 females; total, 738,396, or 95·9 per cent. of the District population. As in Cuttack and Puri Districts, the majority of Hindus of Balasor are Vishnu worshippers, but almost all the Bráhmans are Sivaites. The proportion of Sivaite worshippers among the general population is greater in Balasor, owing to its proximity to Bengal, than in either of the southern Districts of Cuttack or Puri. The Census Report apparently includes the Bráhma Samáj, or reformed theistic sect of Hindus, along with the general Hindu population. The Bráhma Samáj established a congregation in Balasor town in October 1869. The founders were very zealous; and although the congregation consisted at first of only four members, it had increased to nineteen within six months. Only seven, however, were natives of the Province, the rest being Bengalis in Government service. I have no return of the number of members of the Samáj at present, but it must be very small. The strong orthodoxy of the Hindus here, as elsewhere throughout Orissa, affords small prospect of conversions on a large scale.

THE MUHAMMADANS of Balasor number 9328 males and 9550 females; total, 18,878, or 2·4 per cent. of the District population. The Collector reports that the religion of Islám is now declining. The Pániyábandhá, one of the Hindu low castes, have been converted to Muhammadanism; but the creed now makes no converts, and has hard work to hold its own; it is not actively fanatical as in Eastern Bengal. There are no Wahábis or Faráizis. The original Musalmán invaders have left few traces, and the Orissa Muhammadan has little in his personal appearance to distinguish him from the Hindu, except his beard.

THE CHRISTIAN population numbers 241 males and 289 females; total, 530, or ·1 per cent. of the District population. Deducting 82 from the total number of Christians, as representing the European and Eurasian inhabitants, there remains a balance of 448 as representing the native Christian population. This includes several orphans who were rescued from starvation by the missionaries during the great famine of 1865-66. There are two settlements of Christian missionaries belonging to the Free Will Baptists from Dover, New Hampshire, U.S. The principal one is at Balasor;

and in 1870 it contained 154 native converts, whose social status seems to be better than that of native Christians in other Districts. Two or three hold respectable positions in Government service, and the main body of them are industrious mechanics or peasants. They have an important out-station at Sántipur, near Jaleswar, with 85 native Christians engaged in agriculture; and an interesting Christian village at Mitrapur, in the Nílgirí Tributary State, consisting of thirty-one persons in 1870. They are all small husbandmen, but well-to-do. There are also two promising schools of orphan children, rescued from the famine of 1866, and containing 112 Christian children in 1870. The Rev. Father Sapart presides over the Roman Catholic mission in Balasor. A small house of nuns devotedly aids him in his good work.

Division of the People into Town and Country.—The towns of Balasor District are mere collections of hamlets, sometimes clustering into crowded streets and *bázárs*, but in many places separated by clumps of trees and rice fields. Village life goes on in the heart of Balasor city, just as it does in the remotest homestead. The cows are driven forth in the morning, and come back at night. In harvest time the bullocks tread out the corn, and eager families busy themselves in piling up rice-stacks, within sight of the market-place. Nearly every shopkeeper has his little patch of land, to which he clings with all the fondness of a Hindu peasant. The people exhibit no tendency to collect into cities. On the contrary, the towns of Balasor and Soro have certainly declined; and several other towns, such as Bhadrakh and Jaleswar, seem to have been larger in former days than now. The population is entirely rural, and the only town in the whole District containing upwards of five thousand inhabitants is Balasor itself, with a population of 18,263.

Mr. C. F. Magrath's District Compilation for Balasor thus classifies the towns and villages:—Headquarters or Balasor Subdivision:—1392 villages containing less than two hundred inhabitants; 524 with from two to five hundred; 139 with from five hundred to a thousand; 15 with from one to two thousand; 1 town with from two to three thousand; and 1 with from fifteen to twenty thousand. Bhadrakh Subdivision—651 villages with less than two hundred inhabitants; 341 with from two to five hundred; 147 with from five hundred to a thousand; 52 with from one to two thousand; and 3 towns with from two to three thousand inhabitants. Total for

the whole District—2043 villages with less than two hundred inhabitants; 865 with from two to five hundred; 286 with from five hundred to a thousand; 67 with from one to two thousand; 4 towns with from two to three thousand; and one with from fifteen to twenty thousand inhabitants.

BALASOR, the chief town and administrative headquarters of the District, is situated on the right bank of the Burábalang river, in 21° 30′ 12″ north latitude and 86° 58′ 16″ east longitude. The town lies about seven miles from the sea coast in a straight line, and about sixteen miles by river. A description of Balasor port, and of its sea-borne import and export trade, has been given on a previous page (*ante*, pp. 255–258). Balasor was the site of one of the earliest English settlements in Eastern India. The first, as already stated, was at Pipplí, on the Subarnarekhá, established in 1634. The privilege of establishing a factory at Balasor was acquired for the East India Company by a Mr. Gabriel Broughton, surgeon of the ship *Hopewell*. This gentleman in 1636 had the good fortune to cure a daughter of the Emperor, whose clothes had caught fire; and in 1640 he successfully treated one of the ladies of the Bengal Viceroy's *zanáná*. When asked to name his own reward, he replied that he wished nothing for himself, but begged that his countrymen might be allowed a maritime settlement in Bengal. The public-spirited surgeon died before he could even receive the thanks of his masters, but not before the imperial commissions had been made out, granting the English a land factory at Húglí, and a maritime settlement at Balasor. This was in 1642. During the long struggle between the Afgháns and Mughuls, and subsequently between the Mughuls and Marhattás, for supremacy in Orissa, the English factory at Balasor flourished, and gradually grew up into a great seat of maritime trade. Owing to the silting up of the Subarnarekhá, it soon became necessary to transfer the original factory at Pipplí to the head establishment at Balasor. Here we fortified ourselves in a strong position, defended by the river on one side, and by a precipitous channel, which we deepened into a natural moat, almost the whole way round the other three. We mounted guns on the ramparts, an armed sloop or two lay off in the river, and our merchant-fleet, bristling with cannon, commanded the Balasor roads sixteen miles down. Afghán and Mughul worried each other without let or hindrance on our part. Every year our factors made their advances in good English silver, and got together an 'investment' in

country goods. High profits covered the losses which the marauding soldiery now and then inflicted on us, when they burned a weaving village which had got an advance from the factory, or speared a few hundred artisans working at our expense. Indeed, the universal misery of the Province rather strengthened our hands. The only safe place for quiet people was the English factory. Industry and commerce gathered themselves together around it, and manufacturing hamlets nestled within the shadow of its walls. We were always ready to bear a good deal rather than to take the risks of war, and, generally speaking, we were courted rather than attacked. Amid the constant flux and reflux of parties and warring races in Orissa, the English factory, with its guns on the ramparts, stood forth as the one permanent power.

Our two land factories at Húglí and Patná, to which no English ship might penetrate, suffered the oppressions and misfortunes incident to Asiatic misrule, from which our Orissa harbours escaped. What between the ignominious poll-tox on infidels, and toll [illegible]ibes, transit duties, and forced presents of guns and horses, the English factors on the Ganges led a life of peril and contumely which our Orissa settlements knew nothing of. In 1685 the oppressions and exactions of the Mughul governors drove the English into open hostilities; and from then till 1688 we waged a rather unsuccessful war against the Mughuls. In 1688, Captain Heath of the *Resolution*, who commanded the Company's forces, after having in vain negotiated for a fortified factory on the present site of Calcutta, to secure the Company's trade 'from the villainies of every petty governor,' determined to quit Bengal altogether. He accordingly embarked all the Company's servants and goods from their 'fenceless factories,' sailed down the Húglí, and anchored in Balasor roads. Here the Musalmán governor gave some trouble, by seizing two of the gentlemen attached to the local factory; whereupon Captain Heath landed his troops and sailors, defeated the native garrison, and burned the town. The Musalmán governor soon came to terms, and gladly accepted a new treaty which the Viceroy of Bengal had just signed.

From that time forward the English factory had little to fear from the Muhammadan governors of Orissa. It pursued its speculations unconcerned amid the wreck of the Mughul Empire, calmly storing up its merchandise behind its cannon-mounted parapets. We easily got over the difficulty of the want of a local manufacturing

4346; total, 7801. (2) Jaleswar or Jellasor, situated in the north of the District, on the left bank of the Subarnarekhá river, and on the Calcutta high road; estimated population in 1870, males 1712, and females 1745; total, 3457. Jaleswar was formerly one of the Company's factory stations. (3) Soro. also situated on the Calcutta high road, about midway between Bhadrakh and Balasor town; estimated population in 1870—males 1363, and females 1308; total, 2671.

FAIRS.—Several fairs, at which trade is combined with the worship of the gods, are held in Balasor District. The principal of these religious gatherings is held at Remuná, about five miles west of the town of Balasor. A fair in honour of Kshírchorá Gopínáth, a form of Krishna, is held here in February; it lasts thirteen days, and is attended by from 10,000 to 12,000 persons. About £600 worth of goods are sold, consisting chiefly of toys, sweetmeats, fruits, vegetables, country cloth, etc. The temple of the god is an unsightly stone edifice, made more repulsive by prurient sculptures. It is a favourite resort of the masses during the months of February, April, and November. Another fair is held at Khirang, a place about ten miles south-east of Balasor, and near the sea coast, in honour of Mahádeva, the All-Destroyer. It lasts for three days, and is attended by about 8000 persons, who buy and sell wares to the extent of about £400. There are four small gatherings held during the year in honour of Siva. They are of little importance, and last only a single night.

VILLAGE OFFICIALS AND HEAD-MEN.—The following account of the various classes of village officials and head-men is quoted from a report by the Commissioner of the Orissa Division, dated 29th November 1872, upon the Indigenous Agency employed in taking the Census:—

'The indigenous agency employed in the Census work was chiefly that of *sarbaráhkárs*, *mùkaddams*, *baruás*, and other village head-men. As to the origin and history of these officers, I am disposed to believe that from the earliest times the village community, with its head-man elected by the villagers, has been in existence. The powers and responsibilities of the head-man have varied from time to time in the most irregular and capricious manner; and whatever may have been the cause, it is certain that in the Lower Provinces they are nowhere found holding a position equal in rank and privileges to the *desmukhs* or *pátels* of Bombay or

Madras, or even the *lambardárs* of Upper India. It is undoubtedly true that the tendency, since the introduction of our revenue system in the Lower Provinces, has been to allow their powers and position to be overridden by those of the *zamíndár*.

'PURSETHI.—Local tradition states, with reference to the origin of this class of men, that they were created in former times (probably not later than 1450 A.D.) by *zamíndárs* wishing to promote the cultivation of the country north of the Kánsbáns, which we know from native historians to have been but thinly peopled. Previous to 1450 A.D., the Rájás of Orissa had not extended their sway so far north, and the country between that river and the frontier of Bengal was all desert and jungle. Centuries later this state of things still existed in a modified form; and very little communication existed between the two Provinces. The Muhammadans in Akbar's reign, at the close of the sixteenth century, were the first to open a through road. Even to this day, the country between Balasor town and Jaleswar town is called the Bará-kosí or twelve-*kos* road, and was long considered almost impassable. The *pursethís* are found chiefly between the Kánsbáns and the Subarnarekhá, precisely in this tract. When a *zamíndár* wished to extend his cultivation, he deputed a person to settle and clear a tract of country. This was the *pursethí*. He bought the land from the *zamíndár*, with a reservation of proprietary rights of a certain kind to the latter. At the Settlement, the *pursethís* were recognised as subordinate tenure holders; and the *zamíndár* received ten per cent. *málikána*, the *pursethí* thirty per cent. If the estate is sold, the right of the latter remains intact, and cannot be disturbed by the purchaser, whether he purchase at a Government sale for arrears of rent, or at a private sale. The *pursethí* exercises all the powers of a *zamíndár*. He collects the rents, and hands over to the *zamíndár* seventy per cent., being sixty per cent. for Government and ten per cent. for the *zamíndár's málikána*. The latter has no power of interfering in the internal management of the estate. If the *pursethí* resides on the estate, he acts in all respects as village head-man. If, as is often the case, he is non-resident, there is another *sarbaráhkár*, or village head-man, under him, paid, not by *málikána*, but by a regular salary. The *pursethí* is also called *shikmí kharidár*. Among the Settlement proceedings, there are numerous cases in which the rights of the *pursethí* or *kharidár* were inquired into and determined. Thus eight *patnás*

in Sarhar were claimed by one Tribikrám Chaudharí on the strength of certain documents (*kibalás*) produced by him. The Deputy-Collector, after examining the documents, and hearing the *zamíndár's* objections, found that Tribikrám and his ancestors had been in continuous possession from a time anterior to British rule, under the title of *pursethí* or *kharidár—pursethí* of the first grade in certain *patnás*, and of the second grade in others. The Collector, on appeal, made him *pursethí* of the first grade in all the *patnás*. In the Settlement *evidád*, all the *pursethís'* names in the Sarhar estate are entered, with a note that they are to enjoy the same *málikána* as *mukaddáms*. In the Commissioner's confirming *rubákárí*, it is stated that the *pursethí* is one who has purchased land from a *zamíndár* in order to found on it a village; and that he is the *málik* or owner thereof, subject to the payment of the rent to the *zamíndár*, minus thirty per cent. *málikána*. The tenure can be sold or transferred at will.

'MUKADDAM.—This personage is also a subordinate tenure-holder, and was originally the head-man of a village. He retains twenty-five per cent. of the rents as *málikána*, and pays the rest to the *zamíndár*, being sixty per cent. for Government, and fifteen per cent. for *zamíndár's málikána*. The office is hereditary and transferable, but the *zamíndár* can sell the tenure for arrears of rent. In the case of the *mukaddam*, as in that of the *pursethí*, the *zamíndár* does not interfere in the internal management of the estate, nor take upon himself any responsibility for loss by accidents, or convulsions of nature, and the like.

'SARBARAHKAR.—The *sarbaráhkár* is the village head-man. He is remunerated by a commission of either fifteen or ten per cent. on the collections, and is appointed by the *zamíndár*. There are two kinds of *sarbaráhkárs*. The *maurúsí sarbaráhkár* is, as his name imports, an hereditary head-man. The first of his line had been appointed by the *zamíndár*, who, however, has precluded himself by the appointment from any interference in the succession. The non-hereditary *sarbaráhkár* is appointed by the *zamíndár* on each occurrence of a vacancy. Even a hereditary *sarbaráhkár* may be dispossessed for misconduct by the *zamíndár*, though owing to the prevailing ignorance of the terms of the Settlement, it never happens that they are dispossessed; their rights are sold by civil or revenue courts in total defiance and neglect of the law. The non-hereditary *sarbaráhkár* is in fact a mere servant of the *zamíndár*.

removable at pleasure. Both classes collect the rents and remit them to the *zamíndár*, who rarely, if ever, interferes in the management of the estate. They exercise great authority in the village, being generally called by the title of *hákim* by the people, and are terrible despots as a rule.

'PATWARI.—Although bearing this title, the *patwáris* now existing in Balasor are a totally different class from the regular *patwáris* mentioned in Regulation xii. of 1817. They are merely collecting agents of the *zamíndár*, paid by money wages. They are of course removable at the will of the *zamíndár*, and are found only in a few places. They were not recognised at the time of the Settlement. Besides these, there are forty regular *patwáris* in the District, appointed under Regulation xii. of 1817. Their functions are those of village accountants, as described in the Regulation. These latter do not collect rent for the *zamíndárs*, with the exception of three in Bhograí, who collect rents and are paid in cash. The *patwáris* chiefly belong to the Karan or writer caste, but there are Bráhmans, Chásás, Rájus, and other castes among them. They do not keep shops or lend money.

'PRADHAN AND KARJI.—There is very little difference between these two officials. They are both appointed by the *zamíndár*, and are paid by money wages. They exercise great influence in the village, but the post is not hereditary. The *pradhán* is a relic of the old village head-man, now degraded into a mere rent collector. He is quite at the mercy of the *zamíndár*. The *kárjí*, on the other hand, is an officer of recent creation, a mere agent put in by the *zamíndár*. The *pradhán* is always a resident of the village, and a *thání* or hereditary *rayat*; whereas the *kárjí* is not always a *rayat*, or even a resident of the village.

'BARUA.—The *baruá* is a *thání rayat*, generally one of the largest cultivators in the village. He is appointed in some cases by the *zamíndár*, in other cases he is elected by the *rayats*, subject to the *zamíndár's* approval. The position is often honorary, the *baruá* being regarded simply as the head *rayat* and spokesman; when he is merely this, he gets no pay. If he adds to this the task of collecting rents, he receives an allowance in money. He is removed at the pleasure of the *zamíndár*. This post also is a relic of the old village headship, although much degraded.'

MATERIAL CONDITION OF THE PEOPLE.—Almost the whole population live by agriculture. A well-to-do husbandman has one or

two pairs of bullocks, and four or five milch cows. His entire holding is generally under rice, with the exception of a small patch around his house, in which he raises a small crop of cucumbers, gourds, and plantains. The peasantry have now quite recovered from the effects of the famine of 1866, and a series of good harvests for several years past has greatly increased the prosperity of the community. The material condition of the population and their improved circumstances is well illustrated by the following quotation from the Resolution of the Lieutenant-Governor of Bengal on the Commissioner's Annual Administration Report of the Province for 1875-76, published in the *Calcutta Gazette* of September 6, 1876 :—'Orissa has now had a favourable harvest of rice for several years in succession; and the export trade in rice, to which there corresponds an importation of piece-goods and other necessaries, is rapidly extending. The circumstances of the people are, in consequence, undoubtedly improving year by year. It is stated that earthenware has been almost completely replaced by brass, as a material for domestic utensils; that the stock of metal ornaments worn by women and children is evidently increasing; that the wages of skilled labour of all kinds are rising; that the consumption of salt grows larger; and that each year shows also a rapidly increasing expenditure upon opium, the favourite luxury of the people. All these are symptoms of growing prosperity. Moreover, as is remarked by more than one officer, a good harvest is more profitable to the peasant now than formerly; now he can sell all his produce at a good price, whereas formerly a good harvest sent down the prices and his produce realized comparatively little. The only persons who do suffer are those residents of towns who live on a fixed income. These are naturally disappointed that excellent harvests do not result in greater cheapness of rice; and perceiving that the cause lies in the briskness of export, are said to have complained bitterly against the merchants. But the fact that the cultivators have been able to obtain a fair and remunerative price for their produce is, as is observed by the Collector of Balasor, "precisely the most encouraging fact that can be cited in relation to the material progress of the Province. Improvement in communications has yielded this result, that plentiful harvests, which formerly to a great extent glutted the markets with an unsaleable commodity, now add at the same time to the wealth and to the general resources of the country."'

DWELLINGS, CLOTHING, FOOD, ETC.—The houses of the cultivators consist of four mud walls enclosing a court, and used as the gables of little rooms which line the court inside. A Balasor husbandman has usually at least five of these little apartments,—one for his cows, another for his cook-shed, a third for storing his paddy, and two rooms for sleeping and general use. There is generally a verandah outside the wall on both sides of the principal door, for receiving strangers, and as a place where the men of the family talk and lounge. Sometimes, but rarely, the cow shed is built outside the walls. The mud enclosure stands in the middle of a bright green patch of vegetables, and the whole is shut in with a good fence of prickly shrubs. The summer dress of a Balasor peasant is a cotton waist-cloth (*dhutí*) falling over the thighs, and tucked up when at work, with a scarf (*gámchá*) thrown over his shoulder. Occasionally a turban envelops his head. A well-to-do shopkeeper wears an ample cotton shawl (*chádar*) instead of the scarf, which he sometimes twists round his head and ears. He has also a pair of coarse shoes, with long turned up toes and no heels, and elaborately, though roughly, embroidered with coloured thread. The Uriyá shoe is quite unlike anything in Bengal or Behar. In winter the peasant wraps his head and the upper part of his body in a thick double sheet (*dohárá*), while the shopkeeper indulges in a broad cloth scarf (*lui*) and a cotton shirt. A peasant's furniture consists of a few brass pots, platters, and cups, one or two very rude bedsteads, a few mats, and often some instruments of defence, such as a bow and arrows, a sword, or a spear. The better class have generally one or two palm-leaf books on Hindu mythology in their houses, or a legend out of the Mahábhárata or Rámáyana. Rice and milk form the peasant's food. Even dried fish is a luxury. The year's supply of it is stored up in reed baskets, and sparingly doled out. Vegetables also are luxuries not always within reach. The peasants set aside their boiled rice till it turns slightly sour, and esteem this unpalatable mess a favourite article of diet. Speaking generally, the shopkeepers are rather better off than husbandmen who hold the same position in the social scale.

AGRICULTURE: RICE CROPS.—Rice is the staple crop of Balasor, as of all other Districts in Orissa. It is divided into five great genera, and forty-nine principal varieties. (1) The *dálua* or spring rice, sown on low lands in December or January, and reaped in March or April; grown chiefly in *parganás* Bayáng and Káyámá. It is a coarse, red,

unwholesome grain. Its principal varieties are the *dálua, lakshmi-náráyan-priyá, bámanbáha, antarakhá*, and *sarishphul*. (2) *Sáthiyá* rice, sown on high lands in May or June, and reaped in July or August; common throughout the District. Its principal varieties are *dudhsárá*, a fine white, and *kalásuri*, a coarse red grain. (3) *Niyáli* rice, sown on high lands in May or June, and reaped in August or September; common throughout the District. It is a coarse but wholesome grain. Its principal varieties are *náráj, kakháruyá, chámpá, parábatiyá, gobrá*, and *bándabnáli*. (4) *Kanhi* rice, sown on middling lands, throughout the whole District, in May or June, and reaped in September or October. A white, wholesome grain. Principal varieties, *máru, pátmahádeo, geti, motrá, chotá, kártiknakhi, aswini, padágaruyá*, and *syámáli*. (5) *Guru* rice, sown on low lands, throughout the whole District, in May or June, and reaped in December or January. Principal varieties—*básudebóhá, charháinakhi, lakshmi-kajjal, gangábáli, gangájal, tulsikeri* (fine), *dudhsárá, sarsinhá, pasakáti, nimái* (white sweet-smelling), *palásgun, kentákarpur, kanakchor, hundá, methibás, pipiribás* (fine sweet-smelling), *dhusárá, kayá, kukum, rangi, kanásárá, sankarsáli, champáisáli, kalámantá, básgajá, rávaná* (a long-stemmed variety growing in eight feet of water, with a coarse grain), and *demburpakhiyá* (a very coarse grain).

Of late years there seems to have been an improvement in rice cultivation, the finer varieties being more extensively grown than formerly. Every peasant now likes to have at least one field of the finer sort, although the main part of his holding is devoted to the more easily cultivated coarser varieties. No superior cereals have been introduced, however, nor has any marked extension taken place in the quantity of land devoted to rice. It is the one great crop of the District, and the Orissa husbandman has twenty-six distinct names for it in its different stages. As seed, it is *bihán*; when the seed has sprouted, it is *gajá*; the first young shoots are *talá*; the green plant, *buáli*; the mature plant, *páchlá-dhán*; in sheaves, *dhán-purá*; unhusked rice, *dhán*; husked rice, *chául*; rice parched with the husk on, *khái*; rice husks, *tus*; fragments of husks and outer shell of rice given to cattle, *kundá*; rice steeped with the husk on, then slightly boiled, husked, and parched with salt, *muri*; rice boiled in the husk, and husked when warm, *churá*; a preparation similar to *muri, hurumo*; another kind of the same, *mangrái*; cakes made from rice flour, *pithá*; plain boiled rice, *bhát*; rice

boiled with split-peas and spices, *khenchurí*; rice cooked with meat (*piláu*), *pitan*; *khái* sweetened with sugar, *ukhurá*; parched rice when ground, *sátu*; rice boiled with milk and sugar, *kshírí*; thin rice gruel, *jáu*; rice cooked and set aside till it becomes sour, *pakhál*; the water of the above without the rice, *torání*; rice spirits, *poshtí*.

OTHER CROPS.—Among other crops are the following:—(1) Wheat (*goham*), with its varieties *dudhiyá goham* and ordinary *goham*, is sown on high land in September or October, and reaped in March. (2) *Múg* (Phaseolus mungo), with its two varieties *kalá múg* and *jái múg*, sown on high and middling high land in August or September, and reaped in December. (3) *Harar*, red and black, sown in June, and reaped in December. (4) *Barguri*, sown in August or September, and reaped in December. (5) *Birhí*, with its two varieties *noyá* and *dáuliyá*, sown in June, and reaped in December. (6) *Sarishá*, or mustard (oil-seed), with its two varieties *rái* and common *sarishá*, sown in October, and reaped in December. (7) Hemp, sown in May or June, and reaped in August or September. (8) Tobacco, sown in October, and cut in March. (9) Cotton, with its two varieties *marí kápás* and *haldi kápás*, sown in June, and gathered in April; and (10) sugar-cane, with its three varieties, *kantári*, *kadilgorá*, and *báusiyá*, sown in May, and cut for conversion into molasses in December. The cultivation of these crops is sparingly carried on throughout the District. Betel leaf is grown in the *parganás* of Senáot, Pánchmalang, Soso, Sárathá, and Bhográi.

CULTIVATED AREA.—Before recent transfers, the Collector estimated the total area of the District, in round numbers, at 1,200,000 acres. Of these, 566,000 were returned as under cultivation, and 544,000 as uncultivable. There remained, therefore, only 90,000 acres capable of cultivation not under tillage, or 7·5 per cent. of the whole. Roughly speaking, one-half of the District is under tillage, and one-half is incapable of tillage. No statistics exist as to the comparative area under different crops. The truth is, that the whole cultivated part of the District is one sheet of rice. The Collector believes that the proportion of other crops to this staple does not exceed one acre in 1000. It will be observed that in estimating the District to cover 1,200,000 acres, the Collector assumes its area to be 1875 square miles, or 193 miles less than its actual size after the recent transfers. Its present area is returned by the Surveyor-General at 2068 square miles.

OUT-TURN OF CROPS.—Good rice land, renting at Rs. 3 or 6s. an

acre, yields an out-turn of from 16⅔ to 20 *maunds* or from 12 to 15 hundredweights of coarse paddy, and from 15 to 18½ *maunds* or from 11 to 13½ hundredweights of fine. Land paying Rs. 1. 8. 0 or 3s. an acre, yields from 6 to 12 *maunds* or from 4½ to 9 hundredweights per acre. The price of the crop depends upon many local circumstances, but a fair average value would be about Rs. 6 or 12s. for the crop of an acre of land paying at the rate of Rs. 1. 8. 0 or 3s. an acre; and Rs. 10 or £1 for the crop of an acre of land paying double the above rent. Lands lying along the banks of rivers yield a second crop of pulses or oil-seeds, such as *birhi*, *mung*, *jará*, and *sarishá*, the out-turn per acre being about 4 *maunds* or 3 hundredweights, valued at from Rs. 6 to Rs. 8, or from 12s. to 16s.

Condition of the Peasantry.—Balasor is a District of small estates, and the proverbial harshness of petty landlords is intensified by the perplexing way in which their lands are split up. An estate generally consists of a village in one *parganá*, perhaps two in another, and four or five in as many more, all distant from each other. But worse than these ordinary estates are the 'separate collection lands' (*tahsíl aláhidá*). Such an estate, although forming a fiscal entity, and bearing but one number in the District rent-roll, often consists of sixty or seventy small parcels of land, scattered over the whole District, with two or three acres in one village, and one or two acres in another thirty miles off. The confusion is increased by the frequency of a tenure known as 'wages or pension-land' (*múájib*), in which the grantor bestows a definite portion of land in every village of the estate. Thus, if he wishes to bestow one-sixteenth of his property, instead of giving land to that amount in one place, he makes over one-sixteenth of the land in every one of his villages; so that, as in the case of *parganá* Soso, almost every hamlet has one proprietor who possesses it as a whole, and another who possesses part of it as 'pension-land.' In addition to these elements of confusion, there are more than 33,000 rent-free estates, which average less than four acres a-piece. Such grants, even although they may not exceed ten acres in extent, will often be found in ten different plots in as many different villages. The proprietors have also a passion for having their land parcelled out by the process of law known as *batwárá*. In one case, under Regulation xiv. of 1819, which I happened to find pending in 1870, an estate of 895 acres, scattered through forty-eight villages, had nine registered proprietors, each of whom demanded the most minute subdivision

of the land. It is impossible to put their claims into any English nomenclature, but the following represents three of them as they were filed in the Court:—The claim of number one is two *ánnás*, ten *gandás*, three *kauŕis*, fifteen *biswás*, two *gandás*, one *kauŕi;* that of number five is one *ánná*, two *gandás*, three *kauŕis*, one *kránti*, nine *biswás*, fifteen *gandás;* and that of number seven, one *ánná*, fifteen *gandás*, two *kauŕis*, one *kránti*, fourteen *biswás*, six *gandás*. This is merely a fair average case. Such a state of things gives rise to endless boundary disputes. The landholder is necessarily at a distance from the greater part of his scattered land, and takes but little interest in the husbandmen. Instead of having a compact tenantry living together, who could be dealt with in a corporate spirit, he has two or three tenants scattered over forty or fifty distant villages, with whom his only connection is the periodical demand for rent. Each proprietor is eager to get every scrap of his land under tillage; nor can he afford, like the territorial magnates of Bengal, to leave large tracts for pasturage,—a parsimony that makes itself visible in the miserable condition of the cattle. His poverty further compels him to rack-rent all tenants not protected by a right of occupancy. A hungry landlord cannot afford to be generous. The husbandmen on their side have to be content with small holdings. In order to get a good-sized farm, they would have to hold under two or three proprietors, and would thus be exposed to the accumulated tyranny of many masters. If they determined to obtain a good-sized holding under one landlord, they would have to take fields in widely distant villages, and would thus lose time in going to and fro. Large farms are, therefore, unknown. The Collector reports that there are not more than one hundred holdings of from twenty to a hundred acres in the District of Balasor, with its 656,000 acres of cultivable land. Even the few farms that exist of these dimensions are generally held by families of brothers, who cultivate the land in common. From ten to twenty acres is a good-sized holding; and twenty-five per cent. of the farms in the District are of this size. About sixty per cent. are below ten acres. The Collector estimates the average size of a holding at eight acres. The cattle are so poor that one pair of oxen cannot possibly work more than six acres. Fifteen acres make a peasant substantially as well off as a respectable shopkeeper. His dress would be coarser, but he would eat more. As regards actual comforts, he would be much better off than a well-to-do man

on a salary of Rs. 8 (16s.) a month. But, unfortunately, the husbandman is almost always in debt. The landlord, or the village usurer, swoops down on him at harvest time; and so much of his rice goes in satisfying their claims, providing clothes for his family, contributing to the priests, and giving a feast to his friends, that he can seldom keep enough of his crop to live on to the next harvest. About the month of June he begins to borrow again, and the amount accumulates with compound interest till the December harvest. The landholders are the chief rice lenders. They are not so oppressive as the village usurers of Bengal. Money loans are rare; and the long-standing hereditary accounts, which are the curse of the peasantry in other parts of India, are the exception in Balasor. The village usurer is almost unknown in Orissa. About Rs. 9 or 18s. a month is returned as being a comfortable income for a peasant family of five persons, allowing R. 1 or 2s. for clothing; Rs. 7 or 14s. for food, which would provide $3\frac{3}{4}$ *maunds* or $2\frac{3}{4}$ hundredweights of rice, with a small quantity of oil, fish, and vegetables; 8 *ánnás* or 1s. for the family barber, the priest, the blacksmith, and the washerman, who are all paid in kind at harvest time; and 8 *ánnás* or 1s. for miscellaneous expenses.

Tenant Rights.—The Balasor husbandmen are divided into two classes, as in the other Districts of Orissa,—the *thání* and the *páhí*. The *thání* cultivators have a right of occupancy. The Collector estimates their number at 30,000; of whom one-half hold at rents not liable to enhancement under any circumstances, and the remainder at rents which can only be enhanced by a decree of the Court. He reckons the *páhí* cultivators or tenants-at-will at 50,000, or five-eighths of the entire peasantry. The numerous holders of rent-free patches cultivate with their own hands; but, generally speaking, few proprietors of revenue-paying estates do so. The distinction between landlord and tenant is well marked in Balasor. As the *thání* husbandmen hold under the Government Settlement Papers, Act x. of 1859 has but little operation in Balasor; only ninety cultivators had established rights of occupancy under that law up to 1870. These cases have generally occurred from the landowner taking advantage of the cultivator's eagerness to extend his holding, and getting him to give up his old lease for a new one, covering a larger quantity of land. The proprietor then sues for an enhancement of the entire rent, on the ground that the holding commences from the date of the new document. But the Courts,

in such cases, have confirmed the husbandman in his right of occupancy with regard to his original holding, and allowed the enhancement only in the recent addition to it.

DOMESTIC ANIMALS.—Both buffaloes and oxen are used in agriculture. Sheep and goats are so few in number in Balasor, that the Collector believes them not to be indigenous, and thinks that they have grown smaller since they were introduced. An ordinary cow is worth about Rs. 12 or £1, 4s. 0d; a pair of oxen, Rs. 25 to Rs. 35, or from £2, 10s. 0d. to £3, 10s. 0d.; a pair of buffaloes, Rs. 30 or £3; a score of sheep, when procurable, Rs. 40 or £4; a score of kids six months old, Rs. 15 or £1, 10s. 0d.; a score of full-grown pigs, Rs. 50 or £5. The price of the latter animals, however, greatly varies.

AGRICULTURAL IMPLEMENTS.—A small husbandman, with a holding of five acres in extent, has a plough, mattock, sickle, harrow, pickaxe, rake, rope, stake, pack-saddle, rope net, and a pounder for husking rice. The total cost of these implements, together with a pair of bullocks, amounts to about Rs. 40 or £4.

WAGES have greatly increased of late years. The wages of ordinary day-labourers now amount to 2½ *ánnás* or 3¾d. a day; in 1850 they were returned at 1 *ánná* or 1½d.; and in 1860, at 2 *ánnás* or 3d. In 1850, carpenters' wages amounted to 2 *ánnás* or 3d. a day; they now receive twice that sum. Smiths and bricklayers were satisfied with from 2½ to 3 *ánnás* or from 3¾d. to 4½d. a day in 1850-51; they now earn 5 *ánnás* or 7½d.

PRICES.—The cost of the necessaries of life has increased in the same ratio as the rates of wages. The price of the best unhusked rice, such as the upper classes use, was 98 standard *sers* per rupee (1s. 2d. per hundredweight) in 1850; 84 *sers* per rupee (1s. 4d. per hundredweight) in 1860; and 42 *sers* per rupee (2s. 8d. per hundredweight) in 1870. The finest cleaned rice was 50 *sers* per rupee (2s. 3d. per hundredweight) in 1850; 40 *sers* per rupee (2s. 10d. per hundredweight) in 1860; 20 *sers* per rupee (5s. 7d. per hundredweight) in 1870; and about the same in 1874. But the great increase of price shown in the higher qualities is hardly a test of the general cost of living. Common rice, such as day-labourers use, is returned at 60 *sers* per rupee (1s. 10½d. per hundredweight) in 1850; 50 *sers* per rupee (2s. 3d. per hundredweight) in 1860; 35 *sers* per rupee (3s. 2d. per hundredweight) in 1870; and 33 *sers*

[*Sentence continued on page* 297.

STATEMENT SHOWING AVERAGE ANNUAL PRICE OF RICE AND PULSES, IN BALASOR DISTRICT, FOR EACH OF THE SEVEN YEARS 1868–1874.

Year.	Balasor Subdivision.				Bhadrakh Subdivision.				District Average.			
	Rice.		Pulses.		Rice.		Pulses.		Rice.		Pulses.	
	Amount per rupee.	Price per cwt.	Amount per rupee	Price per cwt.	Amount per rupee.	Price per cwt	Amount per rupee.	Price per cwt.	Amount per rupee	Price per cwt.	Amount per rupee.	Price per cwt.
	sers.	*s. d*	*sers.*	*s. d.*	*sers.*	*s. d.*	*sers.*	*s. d*	*sers.*	*s. d.*	*sers.*	*s. d.*
1868, . .	32	3 6	17	6 7	31	3 7	16	7 0	31	3 7	17	6 7
1869, . .	27	4 2	18	6 3	30	3 9	22	5 1	28	4 0	20	5 7
1870, . .	31	3 7	17	6 7	43	2 7	6	18 8	37	3 0	11	10 2
1871, . .	33	3 5	18	6 3	41	2 9	...		37	3 0	18	6 3
1872, . .	29	3 10	13	8 7	35	3 2	10	11 2	32	3 6	9	12 5
1873, . .	34	3 4	10	11 2	40	2 10	...	...	37	3 0	10	11 2
1874, . .	23	4 10	11	10 2	30	3 9		..	26	4 4	11	10 2
Average for seven years;	30	3 9	15	7 6	36	3 1	13	8 7	33	3 5	13	8 7

Sentence continued from page 295.]
per rupee (3s. 5d. per hundredweight) in 1874. Wheat is reported at 16½ *sers* per rupee (6s. 9½d. per hundredweight) in 1850; 14½ *sers* per rupee (7s. 9d. per hundredweight) in 1860; 9 *sers* per rupee (12s. 5d. per hundredweight) in 1870; and 11⅓ *sers* per rupee (9s. 9½d. per hundredweight) in 1874. Sugar-cane sold at the rate of 256 pieces for a rupee in 1850, 192 in 1860, and 128 in 1870. Common distilled liquor sold at 5½ *ánnás* or 8d. per imperial quart in 1850 and 1860; it now sells at 11 or 12 *ánnás*, or from 1s. 4½d. to 1s. 6d.

The foregoing table (p. 296), compiled from Mr. A. P. Macdonnell's 'Report on the Food-Grain Supply of Bengal,' exhibits the average annual rates for common rice and pulses, for the seven years from 1868 to 1874. The following table (pp. 298 and 299), exhibiting the prices current for each month for the seven years 1868-1874, which is compiled from the same source, illustrates the fluctuations in price at different periods of the year.

WEIGHTS AND MEASURES.—Unhusked rice or paddy is measured by the *gauní* (bushel), which is said to equal twenty pounds, but seldom contains more than fourteen. It is in fact a most variable measure, changing in almost every *parganá*, and sometimes in different villages of the same *parganá*. The *gauní* consists of twenty *pautís*. The outlying parts of the District have local measures of their own, unknown in the town of Balasor. Distance is measured as follows:—Twenty *gandá*=one *chhaták*; four *chhaták*=one *páo*; four *páo*=one *kos* of 12,000 feet, or about two and a quarter miles; four *kos*=one *yojan*, or nine miles. The local divisions of time are—sixty *bilitás* or half-seconds=one *litá*, or half a minute; sixty *litá*=one *danda* or half an hour; two *danda*=one *ghari*; three *ghari*=one *prahar* or watch of three hours; eight *prahar*, or sixty-four *danda* =one *ahorátra*, or from sunrise of one day to sunrise of the next. Seven *din* (days)=one *saptáha* (week); two *saptáha*, or fifteen days =one *paksha*; two *paksha*=one *más* (month of thirty days); twelve *más*=one *batsar* (year); twelve *batsar*=one *yúg*.

DAY-LABOURERS were formerly a numerous class in Balasor, but they suffered severely in the famine of 1866, and are now few in number. They are called *múliyás*, and find employment in tilling the land of the larger proprietors, on a wage of nine pounds of rice per diem. They do not supply the seed or implements, but only their manual labour. Mr. W. Fiddian, in his Land Tenure Report

[*Sentence continued on page* 300.

PRICES OF FOOD-GRAINS IN BALASOR DISTRICT, FOR EACH MONTH OF THE SEVEN YEARS 1868-1874.

MONTH AND YEAR.	BALASOR SUBDIVISION.				BHADRAKH SUBDIVISION.			
	Rice.		Pulses.		Rice.		Pulses.	
	Amount per rupee.	Price per cwt.	Amount per rupee.	Price per cwt.	Amount per rupee.	Price per cwt.	Amount per rupee.	Price per cwt.
	sers.	*s. d.*	*sers.*	*s. d.*	*sers.*	*s. d.*	*sers.*	*s. d.*
JANUARY 1868,	42	2 8	19	5 11	40	2 10	16	7 0
1869,	25½	4 4	18	6 3	30	3 9	21	5 4
1870,	32	3 6	18	6 3	40	2 10	22	5 1
1871,	34	3 4	22	5 1	45	2 6	...	...
1872,	32	3 6	18	6 3	32	3 6	...	...
1873,	34	3 4	10	11 2	40	2 10	...	...
1874,	26	4 4	13	8 7	30	3 9	...	...
Average,	32	3 6	17	6 7	37	3 0	20	5 7
FEBRUARY 1868,	39	2 11	21	5 4	38	3 0	20	5 7
1869,	27	4 2	18	6 3	30	3 9	16	7 0
1870,	33	3 5	18	6 3	44	2 6	...	...
1871,	34	3 4	23	4 10	50	2 3	...	...
1872,	32	3 6	18	6 3	32	3 6	...	...
1873,	38	3 0	10	11 2	45	2 6	...	...
1874,	24	4 8	13	8 7	34	3 4	...	...
Average,	32	3 6	16	6 7	39	2 11	18	6 3
MARCH 1868,	39	2 11	21	5 4	42	2 8	20	5 7
1869,	30	3 9	18	6 3	30	3 9	22	5 1
1870,	33	3 5	18	6 3	40	2 10	22	5 1
1871,	34	3 4	21	5 4	45	2 6	...	...
1872,	32	3 6	16	7 0	32	3 6	...	...
1873,	38	3 0	10	11 2	40	2 10	...	...
1874,	24	4 8	11	10 2	34	3 4	...	...
Average,	33	3 5	16	7 0	38	3 2	21	5 4
APRIL 1868,	39	2 11	19	5 11	38	3 0	20	5 7
1869,	29	3 10	20	5 7	30	3 9	24	4 8
1870,	32	3 6	18	6 3	40	2 10	22	5 1
1871,	34	3 4	21	5 4	45	2 6	...	...
1872,	28	4 0	13	8 7	36	3 1	14	8 0
1873,	38	3 0	10	11 2	45	2 6	...	...
1874,	25	4 6	9	12 5	36	3 1	...	...
Average,	32	3 6	16	6 7	39	2 11	20	5 7
MAY 1868,	36	3 1	17	6 7	32	3 6	...	...
1869,	29	3 10	19	5 11	24	4 8	24	4 8
1870,	32	3 6	18	6 3	44	2 6	...	...
1871,	34	3 4	16	7 0	38	3 0	...	...
1872,	28	4 0	13	8 7	36	3 1	10	11 2
1873,	38	3 0	10	11 2	42	2 8	...	...
1874,	21	5 4	9	12 5	26	4 4	...	...
Average,	31	3 5	15	7 6	35	3 6	17	6 7
JUNE 1868,	21	5 4	17	6 7	20	5 7	20	5 7
1869,	26	4 4	18	6 3	28	4 0	22	5 1
1870,	32	3 6	17	6 7	48	2 4	...	...
1871,	32	3 6	16	7 0	38	3 0	...	...
1872,	27	4 2	12	9 4	32	3 6	10	11 2
1873,	38	3 0	10	11 2	42	2 8	...	...
1874,	21	5 4	10	11 2	32	3 6	...	...
Average,	27	4 0	14	8 0	34	3 4	17	6 7

PRICES OF FOOD-GRAINS IN BALASOR DISTRICT, FOR EACH MONTH OF THE SEVEN YEARS 1868-1874—*continued.*

MONTH AND YEAR.	BALASOR SUBDIVISION.				BHADRAKH SUBDIVISION.			
	Rice.		Pulses.		Rice.		Pulses.	
	Amount per rupee.	Price per cwt.	Amount per rupee.	Price per cwt.	Amount per rupee.	Price per cwt.	Amount per rupee.	Price per cwt
	sers.	*s. d.*	*sers.*	*s. d.*	*sers.*	*s. d.*	*sers.*	*s. d*
JULY . . . 1868,	24	4 8	16	7 0	22	5 1	16	7 0
1869,	26	4 4	18	6 3	26	4 4	22	5 1
1870,	32	3 6	17	6 7	42	2 8	...	...
1871,	32	3 6	14	8 0	38	3 0	...	...
1872,	24	4 8	12	9 4	32	3 6	8	14 0
1873,	38	3 0	10	11 2	42	2 8	...	...
1874,	21	5 4	11	10 2	32	3 6	...	...
Average, .	28	4 0	14	8 0	33	3 5	15	7 6
AUGUST . . 1868,	26	4 4	14	8 0	26	4 4	14	8 0
1869,	26	4 4	18	6 3	26	4 4	22	5 1
1870,	27	4 2	16	7 0	36	3 1	...	...
1871,	32	3 6	14	8 0	38	3 0	...	...
1872,	28	4 0	8	14 0	32	3 6	8	14 0
1873,	38	3 0	10	11 2	42	2 8	...	...
1874,	21	5 4	11	10 2	26	4 4	....	.
Average, .	28	4 0	13	8 7	32	3 6	15	7 6
SEPTEMBER . 1868,	32	3 6	14	8 0	25	4 6	16	7 0
1869,	26	4 4	18	6 3	26	4 4	22	5 1
1870,	29	3 10	14	8 0	40	2 10	...	...
1871,	32	3 6	14	8 0	44	2 6	...	. .
1872,	28	4 0	10	11 2	32	3 6	10	11 2
1873,	38	3 0	10	11 2	42	2 8	...	...
1874,	21	5 4	10½	10 8	26	4 4	...	...
Average, .	29	3 10	13	8 7	34	3 4	16	7 0
OCTOBER . 1868,	32	3 6	16	7 0	26	4 4	16	7 0
1869,	26	4 4	18	6 3	32	3 6	22	5 1
1870,	29	3 10	14	8 0	50	2 3	...	...
1871,	32	3 6	16	7 0	42	2 8	...	...
1872,	30	3 9	10	11 2	40	2 10	...	...
1873,	32	3 6	10	11 2	40	2 10	...	...
1874,	22	5 1	12	9 4	26	4 4	...	...
Average, .	29	3 10	14	8 0	37	3 0	19	8 7
NOVEMBER . 1868,	28	4 0	18	6 3	27	4 2	16	7 0
1869,	28	4 0	18	6 3	36	3 1	22	5 1
1870,	32	3 6	17	6 7	44	2 6	...	...
1871,	32	3 6	16	7 0	32	3 6	...	...
1872,	32	3 6	10	11 2	40	2 10	...	...
1873,	17	6 7	10	11 2	32	3 6	...	...
1874,	24	4 8	11	10 2	26	4 4	...	...
Average, .	28	4 0	14	8 0	34	3 4	19	8 7
DECEMBER . 1868,	27½	4 1	17	6 7	30	3 9	19	5 11
1869,	28	4 0	18	6 3	36	3 1	22	5 1
1870,	34	3 4	18	6 3	50	2 3	...	...
1871,	31	3 7	18	6 3	32	3 6	...	...
1872,	32	3 6	10	11 2	40	2 10	...	....
1873,	20	5 7	10	11 2	30	3 9	....	
1874,	26	4 4	11	10 2	36	3 1	. .	. .
Average, .	28	4 0	15	7 6	36	3 1	21	5 4

Sentence continued from page 297.]
for Balasor, states that hired agricultural labourers are of three kinds, viz. :—

'(1) The *bará-másiyá*, *i.e.* a labourer hired for *bará más*, or twelve months. He receives board and lodging in his master's house, and an annual wage of Rs. 12 or Rs. 15, or from £1, 4s. 0d. to £1, 10s. 0d., of which a portion is often advanced to him free of interest. He also receives four garments (two *karujás*, one *gámchá*, and one *chádar*) every year.

'(2) The *nág-muliyá*, who does not live or eat in his master's house. He receives half a *gauní* ($5\frac{1}{2}$ *sers*) of paddy for every day's work done by him, besides an annual present of a new cloth (*gámchá*) and a cast-off garment of his master's (*puráná sirupá*). He is also allowed a plot of land (called *betá*) to cultivate for his own benefit, free of rent. Engagements for one year's service are made with the *nág-muliyá* in the month of Phálgun, at the *Dol* festival; and he receives on that occasion a loan of money, varying from Rs. 2 to Rs. 5, or from 4s. to 10s., free of interest, which is repaid at the termination of the engagement. Such engagements are often renewed year after year for several years, the loan being repaid only on the final cessation of the contract. These coolies give the whole of their time to their master's business. A subdivision of this class, called *ádhá-muliyá*, give only half their time, and receive only half the *betá* land, and one cloth; the daily allowance of paddy being the same as with the *nág-muliyá*.

'(3) The *thiká muliyá*, who is employed by no master in particular, but does day work wherever he is wanted, receiving in return a money wage, amounting to about two *ánnás* or 3d. a day.'

Waste Land.—Before the famine of 1866 there was scarcely an acre of spare land in the District. After that calamity, many fields fell out of tillage for want of cultivators; but the margin of cultivation has now (1876) again advanced to what it stood at previous to the famine. The salt tract and the hilly ravines always remain waste; but in the normal condition of the District, very little land that could be tilled at a profit is left unoccupied. The crowd of small landholders cannot afford to leave even a field in pasture for the cattle. There are, therefore, no jungle-reclaiming leases, nor other tenures favourable to the peasant. When Government gave up the manufacture of salt, and the salt lands returned to the proprietors, some of them tried to induce husbandmen to settle on them

at easy rates. But this plan did not produce any important results; and when the famine came, it was relinquished.

LAND TENURES.—The following interesting Account of the Land Tenures in Balasor District is quoted from a valuable report on the subject by Mr. W. Fiddian, C.S., dated 22d September 1875.

'HISTORICAL SKETCH.—As the tenures of this District were in existence before the Province fell into British hands, and have arisen out of the revenue system maintained by the former rulers of the country, a brief sketch of that system is necessary for the proper explanation of the systems on which land is now held. In the time of the independent Hindu sovereigns of Orissa, prior to the Mughul conquest, the country was divided into two grand divisions, viz. (1) the Military Fiefs, composed of the hilly tracts on the western border, together with a strip along the sea coast on the east; and (2) the Crown Lands, consisting of the more fertile alluvial plain running through the centre of the Province. The former had been granted to military chiefs by the reigning sovereign, on condition of their protecting the border and furnishing contingents to the State army in time of war. The Rájás of Morbhanj, Nílgirí, and Keunjhar are examples of this practice. The land was made over to them as a maintenance for themselves and their retainers, and as an equivalent for military service to be rendered. No money payment was, as a rule, required. They had the full disposal of the land, and they may be regarded as proprietors in the completest sense of the word, having the title of *bhuiyán*, or, as translated by the Mughuls, *zamíndár*, which means landholder. The other and more valuable portion of the country, comprising the greater part of the present Districts of Balasor, Cuttack, and Purí, was set apart for the use of the Crown, and the revenue was appropriated to meeting the various expenses of the ruling prince and his establishment.

'The rents were collected from the *rayats* or cultivators of the Crown Lands and paid into the royal treasury by hereditary officials, who were also entrusted with the police administration of the villages under them, aided by subordinate police officers. These hereditary officials, who merely collected the rents, and, in virtue of their office, enjoyed certain percentages and perquisites, have, together with many others in more recent times, come to be styled *zamíndárs* and proprietors. The only persons, however, who could with strict accuracy be called proprietors of the land are the ancient *bhuiyáns*

in reference to their Military Fiefs, and the sovereign in reference to the Crown Lands.

'In order to understand the present state of tenures, it is necessary to consider, in greater detail, the method by which the revenues of the ancient Hindu sovereigns, derived from their *khalisá* or Crown Lands, were collected, and how the country was divided for purposes of revenue administration. The unit of the system was the revenue village, consisting of a collection of houses, and the land, cultivated or waste, attached to it. A group of villages made up a district, called *khand* or *bisí*. Over the *khand* or *bisí* were two principal officials, the *khandpatí* or *bissoí* and the *bhuí-múl;* the former of whom had mainly to deal with police administration, and the latter with the revenue collections, though the two were considered jointly responsible for the payment of the revenue into the royal treasury. Each revenue village was similarly presided over by two corresponding officials, the *pradhán* or police officer, and the *bhuí* or accountant, who paid in the village revenues to the above administrators of the *bisí*. When the Mughuls took the country, and Akbar's minister, Todar Mall, reorganized the revenue system of Orissa, the *khands* or *bisís* became *parganás*, and the revenue villages became *mauzás;* the *khandpatí* or superior police officer received the title of *chaudharí*, the *bhuí-múl* or chief accountant that of *kánúngo wiláyati*, and the *pradhán* that of *mukaddam*. Where a *parganá*, on account of its size, was divided into two or more portions, each having a separate set of *parganá* officials, these subdivisions were called *táluks*, and the officials *tálukdárs*,—a name subsequently applied to all the *parganá* officials. The system of collection remained radically the same, except that four *sadr* or principal *kánúngos*, with a *gumáshtá* or deputy in each *parganá*, were appointed as a controlling agency to check the ordinary rent-collecting establishments.

'Creation of Zamindari Tenure.—The rights of these rent-collecting State servants appear to have been of the following nature. Their office was hereditary, passing, as a rule, from father to son; but the sovereign retained, and occasionally exercised, the right of dismissing them for misconduct or other reasons, and was applied to by the more important holders for confirmation of their succession to the office. The office was also, to a limited extent, transferable by sale. In the time of the Mughul administration, when the *parganá chaudharís* and *wiláyati kánúngos* failed to pay in the revenues due from the division under their management, the practice

was introduced, or at any rate became much more common, of selling a portion of the defaulter's rights in liquidation of the arrears. The money was invariably paid into the treasury, and a statement to that effect was recorded in the deed of transfer. These appear to be the only circumstances under which sale by transfer was allowed; and it is clear, from a perusal of the deeds of sale, that the subject of transfer was merely the office of revenue manager, with the various rights and privileges belonging to it. They were allowed, however, to sell small plots of unassessed waste land (*bunjár kharíj jamá*) within their jurisdiction; but when the plot of waste land transferred was more than a few acres, all the *parganá* officials, and sometimes the *mukaddams*, united in sanctioning the transaction. They also received fees on account of wood, fisheries, and orchards, taxes on trades, and other miscellaneous duties.

'The *mukaddams* and village accountants held nearly the same position, and exercised the same rights, in their respective villages, as the *parganá* officials. Their office of rent-collecting and revenue administration was hereditary. When they were unable to pay the revenue due, they were allowed to sell their share in the office, paying the proceeds into the treasury in realization of their arrears. They had also the privilege of selling outright small portions of unassessed waste land within the limits of the village, and had a share in the miscellaneous taxes and fees. In some cases they paid the revenue direct into the treasury, instead of through the *chaudharís* and *wiláyati kánúngos*. During the Marhattá rule, and more especially while Rájá Rám Pandit was governor of the Province, the *parganá* officials were almost entirely superseded, the Marhattás preferring to collect the revenue direct from the *mukaddams*. So much was this the case that in 1804, after the conquest of Orissa by the British, when the Commissioners decided, as the wisest course, to make the revenue Settlement with the *parganá* officials and others who, in the latter part of the Mughul era, had acquired the right of paying revenue direct to Government, it was found that most of them had retired into obscurity, and almost forgotten their knowledge of revenue matters; and it was a matter of some difficulty to revive the institution.

'In the Marhattá accounts handed over to the English on the acquisition of the Province, each of the *parganás* was found to be separated into one or more of the following divisions:—*Táluk chaudhari*, *táluk wiláyati kánúngo*, *táluk sadr kánúngo*, *táluk kánúngo*, and

táluk mazkurí. These divisions represent the tracts which the various officials, viz. *chaudharís*, *wiláyati kánúngos*, and the supervising *sadr kánúngos*, had in course of time got recorded in their several and individual names, and for the revenue of which they came to be separately responsible. The holders of *táluks mazkurí* are *mukaddams* of villages who are allowed to pay the revenue into the treasury direct. All the above holders of *táluks* were called *tálukdárs*, and, in later Mughul times, were sometimes denominated jointly "the *parganá zamíndárs*," though the term *zamíndár* was not applied to each one separately. The Commissioners admitted all these, whether they had previously been ousted or not, to pay their revenue direct into the Government treasury; and in subsequent Regulations and proceedings they were all denominated *zamíndárs* and proprietors of the land. Previously, they had been regarded merely as the holders of a hereditary office, with liberty to sell their rights in it only when they were in arrear with the revenue, and to dispose outright of small plots of unassessed waste land. Since 1804, the tendency of the Regulations and the action of the Civil Courts has been to assimilate this *zamíndárí* tenure to the English conception of a landed estate. The *zamíndárs* have been allowed to sell and convey any portion of it in any way they pleased; and the former notion, that they were only a medium between the cultivators and their sovereign for paying the rents into the treasury, has been to a great extent supplanted by the idea that they are the real proprietors and owners of the soil. This is one reason, if a minor one, why the value of *zamíndárís* has increased so greatly. This has not been effected, however, without great loss to the *mukaddams* or heads of villages, who had originally very much the same rights as the *zamíndárs*, and had perhaps a better title to be considered proprietors of their respective villages. These have in very many instances disappeared altogether, having been ousted by the *zamíndárs* (whose interest it was to get rid of them), or having failed to secure the recognition of their rights in the law courts.

'The position of the *zamíndárs* up to the year 1804 has already been described. The *sadr málguzárs*, or persons admitted to engage for the payment of the Government revenue, consisted of all those *zamíndárs* and other individuals whose names were found in the Marhattá accounts, viz. *chaudharís*, *wiláyati kánúngos*, *sadr kánúngos*, and their *gumáshtás*, some *mukaddams*, and village accountants or *sarbaráhkárs*, *pursethís* or head-men of *patnas*, holders of *kharidá*

land (land alienated by sale), of resumed *jágírs*, service lands (*i.e. muwájib*), *dográi* (formerly subsistence lands of messengers), *arázi báti tanki* (subsistence lands at quit-rents of various servants), etc.

'From the year 1804 to 1822 no inquiry was made into the rights of these tenure holders, but they continued to pay the *sadr jamá* under a series of short Settlements, the annual demand not differing very materially from that which previously prevailed. Act vii. of 1822 was passed to provide for a proper Settlement, based on a full investigation into, and determination of, the rights of all parties. The work of the Settlement was spread over the years 1834 to 1845, and engagements were taken from the different *zamíndárs* for periods terminating with the year 1274 Amli (1866 A.D.). The expiration of this Settlement unfortunately coincided with the date of the Orissa Famine; and, considering the condition of the country at that time, the Government renewed the Settlement for a further period of thirty years, at the same assessment rate (*sadr jamá*).

When the *sadr jamá* of each estate had been fixed, the *zamíndár* was granted a certain percentage, *málikána* or *musháhára*, on the whole amount, to cover the expenses of collecting the rents, and as an equivalent for his personal claims or title. The minimum allowance granted on rents collected by them directly from the *rayats* was 35 per cent.; but where the expenses of collection were greater than usual, from the scattered nature of the estate or from other reasons, the allowance was increased to 40 per cent. On rents collected through *mukaddams*, the *zamíndár* received only 15 or 20 per cent., and through *sarbaráhkárs*, 15 to 25 per cent.; the *mukaddams* and *sarbaráhkárs* getting the balance. On rents collected through first-class *kharidádárs*, they received only 5 to 10 per cent. as collecting expenses; and in the case of second-class *kharidádárs*, 15 to 20 per cent. All proprietary rights in resumed *lákhiráj* tenures were declared to be vested in Government, and a total allowance of 15 per cent. was granted for collection expenses. The *zamíndár's* share of this varied from 15 to 2½ per cent., according as the rent passed through his hands alone, or through those of several other parties, such as *mukaddams*, *kharidádárs*, and sub-*kharidádárs*.

'In addition to this varying percentage on the *sadr jamá*, lands uncultivated and waste at the time of the Settlement were left rent-free in the hands of the *zamíndár*, to bring into cultivation as he pleased; but the right was reserved of adding these subsequently

cultivated lands to the rent-roll at the expiration of the thirty years' Settlement. The amount of waste land thus brought into cultivation has been very considerable, so that, when, for reasons stated above, the Settlement was continued without alteration for a second term of thirty years, the State lost all the enhanced revenue which would otherwise have been derived from those lands.

'ZAMINDARI TENURES.—There are altogether 1388 *zamíndárí* estates in Balasor District, or an average of one estate to every $1\frac{1}{3}$ square miles. In *parganá* Fathiábád, in the extreme north of the District, there is an average of one estate to every twenty square miles; while in Matkadábád, in the extreme south, the average is twenty-one estates to each square mile. In the other *parganás*, the proportion varies between four estates to each square mile, and one estate to every four miles. The estate paying the highest *sadr jamá* in the District is *táluk* Krishnapur, in *parganá* Ankurá, which yields a net annual revenue to Government of £1627, 8s. 0d. The smallest estate pays less than two shillings of Government revenue. Three of the *zamíndárí* estates, viz. *kilá* Ambo, *kilá* Mangalpur, and *kilá* Patuá, are held subject to the payment of a quit-rent fixed in perpetuity (*peshkash*). Between 1804 and 1842 these *peshkash* estates were treated as ordinary *zamíndárís*; but at the thirty years' Settlement, for reasons not shown in the records, they were removed from the Settlement register, and confirmed as *peshkash*. These *peshkash zamíndárs*, therefore, are independent in revenue matters, and are only required to pay their fixed quit-rent, amounting in all to £172, 9s. 0d. The other estates are all temporarily settled, and are liable to have their assessment increased at the termination of each period of Settlement.

'MUKADDAMI TENURES.—At the Settlement, it was held that *mukaddams* had no proprietary right in the land composing their villages, although the earlier history of that tenure would appear to give them quite as good a claim as the *zamíndárs* have to their estates. They were consequently allowed a percentage of only 20 per cent., the remaining 15 or 20 per cent. being appropriated by the *zamíndár*, through whom the revenue was paid. Apart, however, from receiving from the *mukaddam* the amount of revenue fixed at the Settlement, the *zamíndár* possesses no other rights, and cannot interfere in the management of the village. The *mukaddam* has control of waste lands, and manages his village in every respect as the *zamíndár* does his estate. The tenure is hereditary, and he

can alienate it, or any portion of it, at will. He also receives 7½ to 10 per cent. on all the *baziáfti* rent, and on the rent of second-class *kharidádárs*, paid through him. More than seven-eighths of the *mukaddami* tenures are to be found in Banchás and sixteen other small *pargands*, which are associated together in the Settlement papers under the joint name of "*parganá* Banchás, etc.," and constitute one-seventh of the whole area of the District. The total number of *mukaddami* tenures in the District is returned at 86; their area is included within the parent *zamindáris* through which they pay their revenue.

'SARBARÁHKARI TENURES.—The *sarbaráhkári* tenure, though involving, apparently, the right to collect the rents of a whole village, is more obscure in its origin than the *mukaddami*, or village-head tenure; and the principal authorities on Orissa tenures have not made more than a passing reference to the matter. Mr. R. Hunter, Collector of Cuttack in 1831, suggests that the title was applied by *zamíndárs* to *mukaddams*, with a view to detracting from the status of the latter class, by giving them an inferior and more vague designation. Stirling, in his account of Orissa, when enumerating the different classes of tenure holders who were admitted at the British accession to be *zamíndárs* and proprietors of the soil, mentions "village accountants, called *sarbaráhkárs*, who sometimes managed their villages, and paid the rent to the Marhattá Government." This appears to indicate the correct explanation.

'The *maurúsí* or hereditary *sarbaráhkár* is apparently the representative and successor, in Muhammadan times, of the *bhuí* or village accountant under the ancient Hindu Government. The *kánúngo* has been named by some as the successor of the *bhuí*, but there is no satisfactory evidence to establish this. The *sarbaráhkári sanads* are almost exactly the same in their nature and conditions as those conferring the *mukaddami* tenure. They were usually granted in the case of villages that were formerly well occupied and paying revenue to the Crown, but had subsequently been deserted and fallen out of cultivation, so that the village was a dead loss to the *parganá zamíndárs*, who had to pay the full revenue for a village yielding no returns. By the terms of the *sanad*, the new *sarbaráhkár* was to settle *rayats* in the village, bring all the land into cultivation, and pay in the fixed Government revenue through the individual conferring the tenure. The balance of profit, after satisfying the Government demand, was to be enjoyed by the *sarbaráhkár*

and his heirs in perpetuity, together with the usual perquisites and taxes on trade.

'At the time when the thirty years' Settlement was being framed, considerable doubt was at first entertained with regard to the proper status of these *sarbaráhkárs;* but after discussion it was resolved, in the year 1838-39, that it should be regarded as one of the tenures of Orissa, and held under the following conditions:—(1) That the tenure could be regarded as hereditary only when it had been so held prior to 1803. (2) That where several *sarbaráhkárs* held the tenure jointly, the Collector could select one or more of them to be recorded as the holder of the tenure. (3) That the holder or holders so recorded could not be ejected except for non-payment of the rents, or for mismanagement, on the complaint being made good before the Collector. (4) That no such tenure could be subdivided or alienated without the consent of the *zamíndár*. The allowance granted to hereditary *sarbaráhkárs* under the Settlement is 20 per cent. on the gross collections. This allowance is the same as that which hereditary *mukaddams* enjoy; but the rights conferred by the *sarbaráhkárí* tenure are more limited, inasmuch as the consent of the *zamíndár* is necessary for the alienation or subdivision of the tenure, and the tenure holder can be ejected for mismanagement or default in paying the revenue.

'In addition to the hereditary *sarbaráhkárs*, there were others who failed to make out a hereditary title, or indeed any title at all; but they were in possession at the time of the Settlement, and had collected the rents for a long time previously. These were recognised as temporary *sarbaráhkárs*, and allowed 15 per cent. for the expenses of collecting the rent. The temporary *sarbaráhkárs*, being for the lifetime of the holders (*hin-i-háiyat*), should by this time have nearly all disappeared; but this has taken place to a limited extent only. Very often the *zamíndár* failed, through ignorance of his rights, to interfere on the death of the original incumbent, whose heir accordingly continued in possession as if he were a hereditary *sarbaráhkár;* and two or three undisputed successions of this kind have welded together a kind of permanent tenure of the *maurúsí sarbaráhkárí* type.

'In practice, the genuine hereditary *sarbaráhkár* subdivides and sells his tenure without any check or reference on the *zamíndár's* part, although the strict terms of the Settlement do not allow this. The temporary *sarbaráhkár*, with his spurious hereditary claims

does not venture to sell and subdivide without the *zamíndár's* consent. *Parganá* "Banchás, etc.," is the stronghold of all the *mukaddamí* and *sarbaráhkárí* tenures. Out of 85 *maurúsí mukaddamí* tenures, 78 are to be found in these associated *parganás*. The total number of hereditary or *maurúsí sarbaráhkárí* tenure holders in Balasor District is returned at 76, and of temporary *sarbaráhkáris* at 85, the area of both being included within those of the parent estates to which they belong. More than one-half of the *sarbaráhkarí* tenures are in *parganá* "Banchás, etc."

'KHARIDA TENURES.—In connection with the *zamíndárí* and *mukaddamí* tenures, there exists a tenure called *kharidá* or *khariji*, which has arisen out of certain rights exercised by the holders of the former two tenures. In the time of the Hindu, Mughul, and Maíhattá rulers, the revenue-collecting officials, viz. the *mukaddams* in their respective villages, and the *tálukdárs*, *i.e. chaudharís*, and *wiláyati kánúngos*, in the *parganás* or portions of *parganás* which they managed, had the right of selling pieces of unassessed waste land (*bunjar kharij jamá*). Land thus sold was called *kharidá* or purchased, and was generally appropriated to the object of forming a garden or plantation, or was used for building purposes to create a new village. A number of these plots, situated in different villages and *parganás*, were often made into a separate *táluk* by some individual, who was allowed to pay the rent into the treasury direct, and got his name recorded in the revenue accounts. A striking instance of this is *patná* Bágh Brindában, an estate made up of plots of land taken from 72 villages situated in 11 different *parganás*. Besides the *kharidá* lands collected into separate estates, there are portions of land held under that tenure in almost every village, the proprietors of which pay the Government assessment on the same through the *zamíndár*.

'Under the present Settlement these *kharidádárs* are divided into two classes,—(1) those who, before 14th October 1803, purchased their lands from the *zamíndárs*, or *parganá tálukdárs*, as they are more correctly designated; and (2) those who made the purchase from village *mukaddams*. The former being considered full proprietors, receive a proprietary and collecting allowance of thirty per cent. on the gross rent collections. Those of the second class, being considered as possessing only the rights of *mukaddams*, receive an allowance of twenty per cent. The *kharidá* tenure is variously termed *kharidá*, *shikmí kharidá*, *shikmí kharidá jamá*

bandí, and *shikmí kharidábandí*. These different terms do not represent any difference in the nature of the tenure. The word *shikmí* (subordinate) indicates that it is a dependent tenure, and *jamábandí* that Government revenue has been assessed on it.

'The *pursethí* is the head-man of a *patná*, *i.e.* a village composed of land which had been purchased from the *tálukdár*, by virtue of the ancient privilege which the *parganá* officials enjoyed of selling waste unassessed land. The office was thus a combination of the *mukaddamí* and *kharidá* tenures. The holder may be called a *kharidá mukaddam*. There are not many holders of this kind of tenure at the present time. The tenure can be sold or otherwise transferred, and is ranked under the Settlement as a first-class *kharidá* tenure. The *pursethí* pays the Government revenue through the *zamíndár*, and is allowed a deduction of thirty per cent., the *zamíndár* getting five per cent.

In the Settlement papers, some of the *kharidá* holdings are entered under the title of *kharidá muskhusi*. This term means *kharidá* land held at a fixed quit-rent; and such land had probably been held under a low assessment, which had remained for many years unchanged, but at the Settlement the right to raise the assessment was in all cases exercised. As the land was of inferior quality, however, the rates at the Settlement also were somewhat low. The original deeds of sale, as in the case of the other *kharidá* lands, show that the land at the time of purchase was usually waste land, sold without any rent charge, in order to liquidate arrears of the Government demand from the *táluk*. After the waste land had been brought under cultivation or built upon, a light assessment was imposed, which in course of time came to be regarded in some instances as a quit-rent. The total number of *kharidá* tenures in Balasor District is returned at 990, the area being comprised within that of the parent estates to which they are attached.

'LAKHIRAJ TENURES.—*Lákhirájí* or revenue-free tenures are of two classes, viz. those declared entitled to be held free of Government revenue; and those the titles of which have been found defective, and which are lightly assessed by Government, although the actual holders retain the land from the *zamíndár* free of rent. These tenures are principally granted for religious and charitable purposes. Such alienations of land were of frequent occurrence in former times, and up to the date of the British accession to the supreme power, but have since then ceased, subsequent grants being

declared null and void. The land so granted was supposed to be in all cases waste and yielding no revenue; but it sometimes happened that portions of superior land were surreptitiously included. The right of creating rent-free tenures was exercised by the ruling power itself as well as by the *parganá* officials in all villages, viz. *chaudharís*, *wiláyati kánúngos*, *khandáits*, *sadr kánúngos*, and their *gumáshtás*, in the villages managed directly by them; and by the village officials, or *mukaddams* and *sarbaráhkárs*, in villages which had a hereditary village head.

'*Lákhiráj* tenures in Balasor District are of the following kinds:—(1) *Debottar*, (2) *bráhmottar*, (3) *pirottar*, (4) *grám-debottar*, (5) *khairát*, (6) *mahattrán*, (7) *madadmásh*, (8) *amrutá monohi*, (9) *kharidá máfi*, and (10) *khusbás*.

(1) '*Debottar;* land set apart for the maintenance of a Hindu idol or *thákur* is termed *debottar;* and by the conditions of the endowment, the *sebáit* or Bráhman who attends to the idol is made trustee. He is bound to expend the proceeds of the land in the usual offerings and rites, and he cannot alienate any portion of the endowment. Should the worship of the *thákur* be discontinued, the land becomes, according to the Settlement, the property of the State. In spite of this, however, sales are effected.

(2) '*Bráhmottar;* land granted either to individual Bráhmans, or to a body of Bráhmans forming a *sásan* or Bráhman village, for their maintenance. The tenure can be sold or otherwise transferred, at the pleasure of the holder.

(3) '*Grám-debottar* denotes the portions of land which have been set apart, from time immemorial, in each village, in honour of the *thákuráni* or female tutelary deity of the place. The land so appropriated is usually small in extent, often only a fraction of a *bighá*. The assignment of the land being of very ancient date, and probably informal in character, there are not, as in the case of *debottar* tenures, any documents showing the nature of the grant, and the services required from the trustees are much fewer and less exacting. Instead of the daily offering, periodical festivals, and regular ceremonial necessary for the *thákur*, offerings once or twice a year, and one or two feast days, are all that seem to be required in the case of the *thákuráni*, or village deity. The *thákur* is lodged in a house; while the *thákuráni* is generally located under a tree, and often in the open plain, and takes her name usually from the tree itself or the locality, as, for instance, at the bend of a river, or

some other simple circumstance. In many cases she has no name at all, and the patch of waste ground forming the *ásthán*, or abiding place of the *thákuráni*, is all that has been set apart, there being no one in charge and no compulsory offering.

(4) '*Khairát* is *lákhiráj* land which has been granted to Vaishnavs and Náyaks or men of the astrologer caste, for their maintenance. Similar grants to Bráhmans are also sometimes called *khairát*.

(5) '*Mahattrán* is the term applied to land which has been granted revenue-free to certain respectable classes of cultivators, viz. individuals of the Karan and Káyasth or writer castes, Khandáits and Rájputs, all of whom go by the name of *khusbás rayats*. They live on their own plots of land, and do not cultivate land with their own hands or engage in the business of the market.

(6) '*Khusbás*.—*Khusbás* land, as the name signifies, is *lákhiráj* given to persons of the *khusbás* castes, and differs from *mahattrán* only in that it may be given to Bráhmans also.

(7) '*Pirottar* is land set apart for keeping up the shrines of Muhammadan saints, including the recital of prayers and presentation of offerings. It corresponds to the *debottar* land for Hindu *thákurs*, and is held under much the same conditions. The individual in charge of the land and shrine is called *khadim*, the office being similar to that of the *sebáit* of *debottar* land.

(8) '*Amrutá monohi*, *i.e.* grants of land for keeping up the worship of Jagannáth at Puri, is a particular kind of *debottar* tenure, to be found in all the *parganás* of Balasor District, and also throughout the Districts of Bengal. The trustee holders of such grants are residents of Puri, or in the neighbourhood of Puri, and send their agents at certain intervals to collect the dues.

(9) '*Madadmásh* and (10) *Kharidá máfi*.—Grants of this nature to Musalmán *fakirs* are called *madadmásh*. *Kharidá máfi*, or *máfi kharidá*, is *kharidá* land on which no revenue was ever imposed under former Governments, and which was allowed at the thirty years' Settlement to remain revenue-free. It differs from other *lákhiráj* tenures in that the land was originally purchased from the *zamíndár*, and not given gratuitously as a favour, or as a meritorious act of devotion.

'The total number of confirmed *lákhiráj* tenures of all kinds is 33,870, which gives an average of 18 per square mile throughout the District. They are distributed very evenly over each *pargana*. *Sanads* conferring grants of *lákhiráj* land were usually drawn up on

palm-leaf. In most cases the land is specifically set forth as "unassessed waste" land; the grant is to remain valid as "long as the sun and moon endure;" and the document closes with a curse upon any one who shall presume to tamper with the grantee's title. When the land has been bestowed on Bráhmans for themselves or for idols in their charge, and on Vaishnavs, the *sanad* contains a provision that the recipient of the land shall invoke blessings on the donor's name three times (*trikálá sandhyá*) a day, viz. morning, noon, and night. This provision is absent from other *sanads*, as the invocations of Bráhmans and Vaishnavs alone are considered of any avail.

'RESUMED LAKHIRAJ TENURES, technically called *lákhiráj baziáfti* lands, are rent-free tenures which, at the time of the thirty years' Settlement, were found to be held under defective titles. The defects of title were—either that they had been created since 14th October 1803; or, if purporting to have come into existence before that year, the *sanad* had not been registered under Regulation xii. of 1805, or was apparently a forged document, or its terms did not mention any hereditary right. Such lands were resumed by Government, but, as an act of grace, assessed at half-rates only. Resumptions were made of each kind of *lákhiráj* land—*debottar*, *bráhmottar*, *khairát*, etc. Holders of more than 75 *bighás* of *lákhiráj baziáfti* land were raised to the rank of *zamíndárs*, paying their revenue direct to Government. The rest pay the Government *jamá* (revenue) through the *zamíndár*, who, however, is considered to have no proprietary title in these dependent holdings, and only receives a percentage sufficient to cover the expenses of collections. In *mukaddami* villages, where the *lákhiráj baziáfti* rent is paid to the *zamíndár* through the *mukaddam*, the latter usually gets 7½ per cent., and the *zamíndár* the same. The number of *baziáfti* tenures, so far as enumerated, is about 6000, but this includes only a portion of those less than Rs. 5 each in value. If the proportion between the number of tenures under and above Rs. 5 is the same in the resumed as in the confirmed revenue-free tenures, then the total number of resumed *lákhiráj* tenures would be not 6000, but 9000. These tenures average probably 5 to the square mile, and are to be found all over the District.

'CULTIVATING TENURES.—The *rayats*, or actual cultivators of the soil, are divided into two principal classes—*thání* and *páhí*. The *thání*, or *sthání*, *i.e.* fixed cultivators, were so called because they

had lived in the village and cultivated its lands from time immemorial; while the *páhí*, or temporary *rayats*, cultivated land in the village without having any permanent home there. The *rayats* paid the rent of their land to the hereditary *mukaddams* and *sarbarákhkárs* in villages where there were such; and where there were no village heads, to the *parganá tálukdárs* or their agents, and now to their successors, the modern *zamíndárs*.

'The *thání rayat* held his homestead land rent free, and paid for the rest of his holding a fixed rate of rent, which was regulated by the Settlement of Todar Mall, Akbar's minister, though the right of adding various cesses was irregularly exercised. In some villages, instead of getting his homestead lands rent-free, he paid rent for it, but less than the current rates, *i.e.* less than the rates paid by *chándniá rayats* (described below).

'The *páhí rayat*, who was free to pick and choose, and to abandon the land when he liked, having neither the privileges nor the responsibilities of the *thání rayat*, used to hold his arable land at a sensibly lower rate of rent. The *thání rayat*, however, in addition to his highly-rated *thání* land, was permitted to hold a further portion at the *páhí* rates. In addition to the payment of a higher rate for his *thání* land, the burden of all extra *ábwábs* and demands fell on the *thání rayat*.

The compensating advantages of a *thání rayat's* position are set forth by Mr. Stirling as follow:—"In the first place, there is the general one of having a home of his own, where his ancestors have dwelt in all ages; of sitting under trees which they planted, and of bestowing his labours on land which may, in one sense, be called his own; rooted to the soil, he has a local habitation and a name, a character known to his neighbours, and a certain degree of credit thence resulting, which enables him to borrow from the *mahájan*, and secures to him a settled market for the disposal of his produce," etc. He has also "a spot called *talmunidá* to drop the rice seed into previous to transplanting. A preference is given to him in cultivating the lands of the village *lákhrájdárs*."

'Sometimes the burdens became so heavy, and so far outweighed the advantages of a *thání rayat's* position, that many of them were driven to give up their "local habitation and name," and become *páhí rayats*, in places where the conditions of life were less burdensome. At the present day this happens much less frequently; and then only in the case of individual cultivators, who are unable to endure

any longer the exactions of an unusually oppressive *zamíndár*, or to bear up under an extraordinary calamity like the famine of 1866.

'Previous to the thirty years' Settlement of 1835, *thání rayats* did not hold *pattás* or leases for their land, but paid rent for their share, whether the whole of it was cultivated in any particular year or not. *Páhí rayats* more often received *pattás*, and executed *kabuliyats* or counter-engagements. The *pattás* given for *thání* land at the Settlement were a new and valuable feature, in every way advantageous to the cultivators, whose position thereby acquired a stability and legal definiteness not previously existing. The homestead land remained, as before, rent-free. Mr. Mills, the Commissioner, states that at the Settlement the *thání* rates were lowered; but even then the *páhí* rates, which were supposed to be the market rates, were fixed on the average at 4 *ánnás* in the rupee, or twenty-five per cent., below the *thání* rates. Since that time, the pressure of increasing population has caused land to be more sought after, and raised very considerably the rates for *páhí* land, so that the position of the *thání rayat*, with his fixed rates, has gone on improving relatively to that of the *páhí rayat*, and his *thání pattá* has become a marketable article. In a number of rent cases recently decided, in which the cultivators of several villages were at variance with the *zamíndár* about the rates for *páhí* land, both parties agreed to accept an increase of 5 *ánnás* per *bighá* as an equivalent for the informal, and sometimes irregular, rise in rents which had taken place since the Settlement. This represents an average increase on the *páhí* rental of fifteen to twenty-five per cent.

'The *thání rayat* always had the hereditary right of cultivating his land at certain well-established rates. He could not transfer his rights by sale, nor does he appear to have ever thought of doing so. Since the introduction, however, of *thání pattás* at the thirty years' Settlement, the *rayat* has, in times of urgency, sold his *pattá* (not the land itself) to persons who were willing to pay a price for such rights as the transfer might give them. In the famine year (1866) 360 such transfers by sale and mortgage were duly registered, being more than one-third of the total number registered in the eleven years 1864 to 1874. A small number are also sold every year in execution of decrees for arrears of rent. The Settlement *ruidáds* state that the *thání rayat* has no hereditary rights, nor any right beyond that of remaining in undisturbed possession as long as he

pays the rent stated in his *pattá*. The *pattá*, however, holds good no doubt for the term of the Settlement, whether the original grantee or his heir is in possession, otherwise nearly all the *pattás* would at the present time be worthless; and, in reference to rights of occupancy, possession by the son (or other heir) has been declared by Act x. of 1859 to be the same as possession by the father. Thus the *thání* holding does not differ materially from a hereditary one, conditional on the payment of the stipulated rent. The revenue authorities have recently gone very fully into the subject of *thání pattás*, and have declared that they are not transferable without the consent of the *zamíndár;* nevertheless such *pattás* are constantly changing hands, apparently without reference to the *zamíndár*, and are a very marketable article, fetching, in some instances, Rs. 20 or Rs. 25 a *bighá*, or nearly as much as some *lákhiráj* land. Of the tenures sold by auction in the Civil Court in execution of decrees, not less than one-fourth are *thání pattás.*

'*Chándniá rayats* are a class of persons who live in the village, but, unlike the *thání rayats*, pay rent for their homestead land. The reason of this appears to be that they do not cultivate *jál* or rice land like the *thání rayats*, and have therefore no other land, besides the homestead, on which rent could be assessed. The *chándniá rayats*, in fact, belong to the Telí, Baniyá, and other castes whose business it is to trade. They also occupy *patnás*, *i.e.* villages which consist of building land only.

'Rents are for the most part paid in money, not in kind. The system called *bhág* or *bákhrá*—by which the cultivator divides his crop into two equal parts, one for his landlord and one for himself—is practised to a limited extent, and for the most part in the case of those only who are tenants-at-will, and have no option. It is naturally unpopular with cultivators, as in an average year the *bhág* system gives to the landlord as much as the ordinary money rent of three years. A *rayat* having land at a money rent will often himself sublet a part of it on the *bhág* system, and so make a profit. A modification of the above method of paying in kind is that called *saujhá*, according to which the rent receiver's share of the crop does not vary each year with the out-turn, but is fixed at so many *sers* on an average estimate. Rents in *tahsíl aláhidá* estates, *i.e.* estates composed of detached plots of land in different villages, are usually lower than the ordinary rates, because the cultivators live within the jurisdiction of other *zamíndárs*, and are less under the influence of the

tahsíl alákhidá tenure holder, who is thus unable to dictate his own terms.'

The total number of cultivating tenures in Balasor District is returned at 155,013, comprising an area of 1,164,180 *máns* or acres.

'JAGIR OR SERVICE TENURES.—At the time of the thirty years' Settlement, a large amount of land was found to be held rent-free by various persons as *jágír*. The greater portion of this land was resumed by Government, and added to the State rent-roll, because either the holders of the land were in no respect public servants, or else had been remunerated in some other way. The remaining *jágírs*, chiefly those of village officials and servants, were confirmed, on the ground of the services rendered by the holders to village communities or to the public at large.

'*Resumed Jágírs.*—The *nánkár*, or subsistence land of *zámindárs* and their brethren, also called *khudkásht*; the *khudkásht* land of *mukaddams* and *sarbaráhkárs*; and the *nirási* land held by the brethren of *mukaddams* and *sarbaráhkárs*, were all included in the class which suffered resumption. Similarly, the lands found in the possession of the *zamíndár's* subordinates and rent-collecting establishment, and held by them rent-free in lieu of salaries, were resumed on the ground that the *zamíndár's* allowance under the Settlement of thirty-five or forty per cent. on the gross revenue included the expenses of collection as well as *málikána*. Among these *jágír*-holding subordinates were *náibs*, *gumáshtás*, *ámíns*, *peshkars*, *kárjís*, *patwáris*, *muharrirs*, and *chhátiyás* or rent-collecting peons.

'Another class of *jágírdars*, whose holdings were resumed on the ground that they did no public service of any kind, consisted of musicians, viz. drum-beaters (*nagarchí bájáddr*), flute-players (*mohuriyá sanarchí*), and trumpeters (*turiyá bharangiyá*); and another class, of menial servants and artisans, such as sweepers, gardeners, masons, tailors, boatmen, *páilki*-bearers, the *didar*, a person to watch the crops at harvest time, the *páiks*, *simánáddrs*, and *nabbars* of miscellaneous occupation, the *sirokatí* or herdsman, the *kukuriyá* or dog-keeper, and the *suduriyá* or *zamíndár's* agent at the police *thánd*.

'The *jágírs* confirmed at the time of the Settlement consist of two classes,—(1) Those of village officials, and (2) those of *páiks* attached to the *thánás*.

(1) 'The principal village *jágírdárs* are the *chaukidár* or policeman,

the barber, the washerman, the carpenter, the blacksmith, and, in some cases, the boatman. The amount of their *jágírs* was in many instances reduced at the time of the Settlement, and now varies from a fraction of a *bighá* to one or two *bighás*; but the *chaukídár* holds five *bighás*, or even more. The *chaukídár* also receives a sheaf of corn from each *thání rayat*, and 2 or 3 *ánnás* from *chándnid rayats*; but the practice in regard to these subsidiary payments varies in different *táluks*. The duties of the *chaukídár*, as set forth in the Settlement records, and based on ancient custom, are to guard the houses, crops, and property generally, of the *rayats*, to patrol at night, and report all occurrences at the *tháná*. By section 21, Regulation XX. of 1817, he is further required to report vagrants, and to arrest proclaimed offenders, or persons taken in the act of committing murder, robbery, or other heinous offence.

'The barber shaves the villagers, and the washerman washes their clothes. The blacksmith and carpenter make and repair all ploughs and other agricultural implements required by the villagers. The boatman, where stationed, ferries the villagers on their way to market or the field. The barber, blacksmith, carpenter, and washerman, in addition to their *jágírs*, receive payment from the cultivators, for all work done. In some of the Settlement *ruidáds* it is stated, as an additional reason for confirming the *jágírs* of these village servants, that, if the land were taken away, they would remove elsewhere, and the *rayats* would thus be put to extreme inconvenience, as workmen of these crafts are often but very sparsely scattered over the rural parts. The number of these *jágír* tenures, and their area, has not been ascertained.

(2) '*Páik* and *Chaukídárí Jágírs*.—The *páiks* of the present day in the District of Balasor are the relics of the police system introduced by the Mughuls. Stirling mentions Bastá, Remuná, Soro, and Bhadrakh as the places at which *thánás* were set up in the year 999 Amli by Rájá Mán Sinh, Akbar's general. The *páiks* were attached to these *thánás*, as is shown by the *sanads*, renewable yearly, under which their *jágírs* were granted; and over them were a number of *páik sardárs*, who superintended their work and shared in the land. These *páiks* and *sardár páiks*, together with the *chaukídárs*, are stated in Toynbee's *Orissa* to have been controlled in the Marhattá era by the *kotwál*, or chief executive officer, over whom again was the *zamíndár*, the *ámil* being the head of all and chief administrator of justice. At the time of the extension of the *tháná* system in

1806, the *páiks* were made subordinate to salaried *darogás*, these officers in many cases being the *zamíndárs*.

'It has been asserted sometimes that the *páiks* had two separate masters—the *zamíndárs* and the Government; and that they had two distinct sets of duties, viz. as private servants to the former, and as guardians of the peace for the latter. This is in no way the case with the Balasor *páiks*. The original *sanads* conferring their *jágírs*, the Regulations of 1804 and 1805, and the statements of both *zamíndárs* and *páiks* at the time of the Settlement, establish conclusively the fact that the *páiks* were from the first attached to the *thánás* to perform police duties; and to employ them in other business was forbidden by section 21, Regulation xx. of 1817. The only way in which the *zamíndárs* were connected with the *páiks* was as their superior police officers.

'A portion of the *páiks* hold their lands under *sanads* from the former Government, and pay a quit-rent which was continued in the present Settlement. The remainder, having no *sanads* at all, hold their *jágírs* under just the same conditions as *chaukídárs*, and may be treated in exactly the same way. The *páiks* have entirely disappeared from the most southerly of the old *thánás*, Bhadrakh. At Soro there are a few; proceeding farther northwards, to Balasor and Bastá, the number increases, and is greatest at the extreme north, in Jaleswar and Báliápál, formerly part of Midnapur. To the south of Bhadrakh, at the Dhámnagar and Chándbálí *thánás*, there are a few *páiks* who were probably attached to the Jájpur *thánd*, in Cuttack District, in former times. Besides the *páiks*, there are a few officers whose former position and duties in the Mughul police force are not clearly known, but who are attached to the *thánás* similarly to the *páiks*. Their names are *náib sardár*, *dulái*, *dolkarán*, *daffadár*, *khandáit*, and *nabbar*. The total number of *páik jágírs* in Balasor District is returned at 627, comprising an area of 5543 *máns* or Uriyá *bighás*, a *mán* being equal to an English acre. The officers' tenures, viz. the *sardárs*, *dulais*, etc., number 165, comprising a total area of 3737 *máns* or acres.

'*Chaukídárs*, or village watchmen, seem to have been in existence ever since the formation of village communities. The old Uriyá name for them is *dandwási*, or holder of the staff. They are also called *digwárs* or patrols. *Chaukídárs* are distributed throughout the District, and are of two main classes—those who are paid in money, and those who hold *jágírs*. The *chaukídárs* in the north of

the District belong to the first of these classes; while in the south they nearly in all cases hold grants of land. In the intermediate portions of the District both classes are to be found. One reason for the absence of *jágír*-holding *chaukidárs* in the north may be that that part of the District was formerly wild and jungly, and has been more recently brought into cultivation, so that the old custom of granting a *jágír* was not observed. The average *jágír* amounts to 5 *máns* or local *bighás*, and the average cash salary to Rs. 1. 8. 0 or 3s. a month. A few *chaukidárs* are supported both by money payments and small *jágírs*. The realization of the cash salaries from the villagers often gives much trouble to the police, and the necessary distraint of household goods for that purpose is felt as a hardship. The payments are frequently much in arrear, so that the *chaukidár* leads a very dependent, hand-to-mouth sort of life. An adequate *jágír*, on the other hand, gives him a more respectable and independent position in the village, where a landless man is looked down upon, and enables him to be less a creature of the *zamindár*. At the time of the Settlement, it was resolved by Government, on the suggestion of the Superintendent of Police, to resume all the *chaukidárs' jágírs*; but the local officials strongly objected, and in the end the resolution was ignored. The *chaukidári jágírs* in Balasor District number 1064, comprising an area of 5852 *máns*; the *digwári jágírs* are 245, comprising an area of 1624 *máns*. The number of money-paid *chaukidárs* is 716, their total monthly salary amounting to £107.'

Rates of Rent.—Rents vary according to the liability of the land to devastating floods, and according to whether it is held on a *thání* or *páhi* tenure. The lowest description of soil is called *jál* or water land, which is divided into three classes according as it is more or less subject to inundations. It pays from 6 *ánnás* to Rs. 2 or from 9d. to 4s. an acre; in very rare cases as high as Rs. 3 or 6s.; but the average rate for good land is about half that sum. It produces only inferior kinds of rice. The *kálá* or black soil ranks next. It pays from 8 *ánnás* to Rs. 4 or from 1s. to 8s. an acre, the average being about Rs. 2 or 4s. It grows all sorts of pulses, mustard, hemp, etc. The next quality is the *pál*, which produces the finer kinds of rice, and also all the other crops grown on *kálá* land, yielding two crops in the year. It pays from Rs. 2 to Rs. 5 or from 4s. to 10s. an acre, and averages Rs. 3 or 6s. The highest class of land is the *olám*, or the fields lying round the home-

steads. They are devoted to vegetables and other expensive crops, such as tobacco or sugar-cane, and pay as high as Rs. 12. 8. 0 or 25s. an acre, but may be estimated to average Rs. 7. 8. 0 or 15s.

The following are the rates of rent in the several *parganás* of Balasor for the best qualities of two-crop and winter rice land:—In Arán-rupauyá, for winter rice land, Rs. 2 or 4s. an acre. In Armalá, Rs. 1. 9. 0 or 3s. 1½d. per acre for winter rice land. In Arso, Rs. 3. 2. 0 or 6s. 3d. an acre for winter rice land. In Ahiyas, Rs. 4 or 8s. for two-crop, and Rs. 1. 9. 0 or 3s. 1½d. for winter rice land. In Ankurá, Rs. 4. 11. 0 or 9s. 4½d. for two-crop, and the same for winter rice land. In Bálkhand, Rs. 3. 2. 0 or 6s. 3d. for two-crop, and the same for winter rice land. In Banchás, Rs. 4 or 8s., and Rs. 3. 9. 6 or 7s. 2¼d., respectively. In Bayang, Rs. 9. 6. 0 and Rs. 2. 8. 0, or 18s. 9d. and 5s. In Bisalkhand, Rs. 2 or 4s. for two-crop land. In Bastá, 14 *ánnás* and Rs. 1. 4. 0, or 1s. 9d. and 2s. 6d. respectively. In Bher, Rs. 6. 4. 0 and Rs. 4. 11. 0, or 12s. 6d. and 9s. 4½d. In Bhográi, Rs. 6. 4. 0 or 12s. 6d. for winter rice land. In Chhanuyá, Rs. 2. 8. 0 and Rs. 1. 4. 0, or 5s. and 2s. 6d. In Dhámnagar, Rs. 4. 1. 4 and Rs. 4. 12. 0, or 8s. 2d. and 9s. 6d. In Dasmalang, Rs. 1. 8. 4 and Rs. 1. 3. 0, or 3s. 0½d. and 2s. 4½d. In Dolgrám. Rs. 3. 2. 0 or 6s. 3d. for each. In Dararáchaur, Rs. 1. 13. 0 and 12½ *ánnás*, or 3s. 7½d. and 1s. 6¾d. In Garhpádá, 12 *ánnás* and 13 *ánnás*, or 1s. 6d. and 1s. 7½d. In Julang, Rs. 1. 10. 0 or 3s. 3d. for winter rice land. In Kátiyá, Rs. 3. 2. 0 or 6s. 3d. for both. In Kátsáhi, Rs. 1. 7. 2 and 12¼ *ánnás*, or 2s. 10¾d. and 1s. 6¼d. In Kismatkatsaí, Rs. 5. 6. 0 or 10s. 9d. for both descriptions of land. In Kamardáchaur, Rs. 4. 11. 0 or 9s. 4½d. for winter rice land. In Kundardáchaur, Rs. 1. 4. 0 and 12½ *ánnás*, or 2s. 6d. and 1s. 7d. respectively. In Kundí, Rs. 1. 11. 0 and Rs. 1. 6. 0, or 3s. 4½d. and 2s. 9d. In Khejurí, R. 1 and Rs. 1. 14. 0, or 2s. and 3s. 9d. In Múlgáon, Rs. 2. 2. 0 and Rs. 1. 12. 0, or 4s. 3d. and 3s. 6d. In Muldáchor, 14¾ *ánnás* or 1s. 10d. In Mukhrá, Rs. 1. 14. 0 or 3s. 9d. In Nápo, Rs. 2. 8. 0 or 5s. for winter crop land. In Nángaleswar, Rs. 1. 4. 6 and 13½ *ánnás*, or 2s. 6¾d. and 1s. 8¼d. respectively. In Nunkhand, Rs. 2. 1. 4 and Rs. 1. 3. 0, or 4s. 2d. and 2s. 4½d. In Phulwar, 15 *ánnás* and Rs. 1. 4. 6, or 1s. 10½d. and 2s. 6¾d. In Rájutárá, Rs. 3. 2. 0 and Rs. 2. 8. 0, or 6s. 3d. and 5s. In Remuná, Rs. 2. and Rs. 2. 12. 0, or 4s. and 5s. 6d. In Rádiyá-orgará, Rs. 3. 2. 0 or 6s. 3d. for both descriptions of land. In Seńáot, Rs.

6. 4. 0 and Rs. 9 6. 0, or 12s. 6d. and 18s. 9d. respectively. Sunhat, Rs. 2. 5. 0 or 4s. 7½d. for winter crop land. In Soro, Rs. 6. 4. 0 and Rs. 9. 6. 0, or 12s. 6d. and 18s. 9d. In Sháhbandár, Rs. 5. 8. 0 and Rs. 5. 2. 0, or 11s. and 10s. 3d. In Sátmalang, Rs. 3. 2. 0, or 6s. 3d.; and in Sárathachaur, 13 *ánnás* or 1s. 7½d. for winter rice land. In Siádihí, Rs. 1. 2. 0 and Rs. 1. 5. 0, or 2s. 3d. and 2s. 7½d.; and Talsabang, Rs. 1. 9. 6 and Rs. 2. 2. 0, or 3s. 2¼d. and 4s. 3d. respectively.

In July 1872, in accordance with instructions from the Government of Bengal, the Collector furnished a special Report upon the current rates of rent prevalent in Balasor District for the ordinary descriptions of land. The following table exhibits the average rates of rent for ordinary land, in the north, centre, and south of the District, distinguishing between the rates payable by *thání* and *páhí* cultivators:—

AVERAGE RATES OF RENT FOR ORDINARY LAND IN BALASOR (1872).

Description of Land.	North		Centre.		South.	
	Average *thání* rates per *mán*[1]	Average *páhí* rates per *mán*	Average. *thání* rates per *mán*.	Average *páhí* rates per *mán*.	Average *thání* rates per *mán*.	Average *páhí* rates per *mán*
	R. a. p.	*R. a. p.*	*R. a. p.*	*R. a. p.*	*R. a. p.*	*R. a. p.*
Pál, or two-crop land, .	2 13 0	2 12 0	1 5 0	0 15 0	3 4 0	2 12 0
Tál, rice land—						
1st quality,	1 12 0	1 9 0	1 7 0	1 4 0	1 13 0	1 8 0
2d do., .	1 6 0	1 4 0	1 1 0	0 15 0	1 6 0	1 2 0
3d do., .	1 0 0	0 15 0	0 12 0	0 12 0	0 15 0	0 14 0

MANURES consist of cow and buffalo dung, ashes, rotten straw, and black earth from the bottom of tanks. Land is thoroughly manured at least once in five years; about 13½ *maunds* or 10 hundredweights being allowed for an acre of rice, and twice that amount for sugar-cane. The cost, when the materials have to be bought, is about seven *ánnás* or 10½d. an acre.

Land is seldom left fallow; and, indeed, to have fallow land is looked upon as a calamity. The cultivators are acquainted with a rotation of crops, alternating rice with cotton, but they practise it only in Senáot *parganá*, and on a few patches of land along the banks of the Subarnarekhá.

[1] A *mán* or local Uriyá *bighá*, is equivalent to an English acre.

BLIGHTS are not common, but a small insect called *punhárá*, identical with the *genrui* of Hindustán, does occasional mischief. It cuts through the ear of the rice while still green. For a description, see Sir H. Elliot's *Glossary*, Mr. Beames' edition, vol. ii. p. 327

FLOODS AND DROUGHTS are the scourges of the District. The former result from the sudden rising of the rivers in the hill country and Tributary States. The Burábalang and Sálandí do comparatively little harm, but the Subarnarekhá and Baitaraní devastate the country almost every year. From 1832 to 1867, £62,584 of Government revenue has been remitted in consequence of floods, and £61,866 in consequence of drought, making a total of £124,450 during the thirty-five years, or £3555 per annum. This subject has been fully treated in my *Orissa*. The protective works against floods consist of embankments, the maintenance of which has, including establishment, amounted to £9182 during the twenty-four years of which records are found, preceding 1866. This would represent the interest on £183,640, at five per cent. During the seven years from 1860-61 to 1866-67, the total outlay by Government for protective works and remissions of revenue averaged £4026, or a charge of ten per cent. on the whole land revenue of the District. I am unable to give any information as to the cost of embankments since 1866-67.

Even the vast outlay mentioned above wholly fails to control the water supply of the District. The two principal embankments are the Bhográi and Salsá Pát, on the lower reaches of the Subarnarekhá. The great Nuná, or salt embankment, runs for many miles along the sea-face of Ankurá *parganá*, and is intended to keep out the sea. Sometimes, however, this embankment produces as great an evil as it was constructed to prevent. In 1867 it prevented the waters of the Gammaí from escaping to the sea; but the embankment fortunately gave way before the pressure of the river, and the waters rushed through the breach. The Bhográi embankment is a new work, only completed in 1870. At the mouth of the Subarnarekhá was an old embankment constructed by the Marhattás, and afterwards replaced by another built by the British Government. Both of these embankments were constructed too close to the river to allow the water to escape freely in time of floods. These have both been destroyed; and the present Bhográi embankment runs farther back, so as to give plenty of waterway for the floods, and thus prevent the overflowing in the higher parts of the rivers which formerly resulted from the narrowness of their outlets. The Bhográi embank-

ment, by allowing a good passage for the escape of water during flood, will render *parganás* Bhográi, Kamardá, Nápo, and Jaleswar less liable to inundation than in time past. The other large embankment, the Salsá Pát, on the opposite side of the river, protects the southern *parganás* of the District. The embankments on the other rivers are numerous, but small, and made without reference to any general system of protection from floods. If they do good to the village in which they are situated, they often do harm to villages on the opposite bank, by throwing the set of the current on to the other side. The Collector states that a general scheme of embankment having reference to the protection of the whole District, instead of, as at present, for the benefit of particular villages or landholders, is urgently needed. The floods are of short duration, but quite unmanageable while they last. The rivers rise to a great height in a few hours, and rush with extreme violence. The obvious plan would be to secure as straight a course as possible for the water from the hills to the sea, so that it may run off quickly and not be driven from bank to bank, and impeded at every turn. This, however, would necessitate the sacrifice of villages occupying projecting tongues of land on the banks. But if the estates in the District were large, the landholders would probably not object to give up one or two villages to save the rest. In *parganá* Bhográi this was done, the proprietor having readily accepted Rs. 3 or 6s. an acre for 1000 acres so sacrificed. In other parts of the District, estates are so small, that the village to be given up would often form the sole property of some half-dozen petty landlords, who could not afford to part with it without heavy compensation, as, in addition to the loss of their rents, they would also be deprived of their status as landholders. The Collector reports that the objection which has been raised to the straightening of rivers in some parts of Bengal, namely, that the water would run away too quickly, does not apply to Balasor, where the rivers are not used for irrigation purposes in their lower reaches, or for navigation in their higher. There is no navigation to speak of beyond tidal limits, and even that almost entirely ceases before the flood season. Sufficient water for shipping is supplied by the tide, and irrigation in the higher courses can be provided by anicuts and canals. The Collector is of opinion that the works already sanctioned, if supplemented by a well-devised general embankment scheme, would render the District secure against damage by flood.

DROUGHTS arise in Balasor from the absence of local rainfall. The failure of the rivers seldom produces drought, as the people do not use their waters, except to a very limited extent, for irrigation. Four great droughts have occurred in the District within the recollection of the present generation, viz. in 1836, 1839, 1840, and 1865. No provision exists against damage caused by want of rain. The tanks and other receptacles of local drainage are not available for irrigation, and the rivers are allowed to carry away their waters unused to the sea. The Collector mentions, as an instance of the reluctance of the people to utilize the rivers, the case of *parganá* Rádiyá-orgará which suffered severely from want of rain in 1869. The river Sálandí runs through the centre of this *parganá*, and when the drought made itself felt, and the people were praying for help, the Collector asked them why they did not use the river water as a means of irrigation. They only replied that it was not the custom; that the proprietors of land on the rivers' banks would object to channels being cut through their lands for the purpose of carrying water to fields farther inland; that it would be very hard work; that it would not pay; and that river water was not so fertilizing as that which came 'from heaven.' At all events the river water was not used, and the crops perished in consequence. The Collector reported in 1870 that the projected Cuttack and Midnapur Canal would be of the greatest value for purposes of irrigation. At the same time, he anticipated that the people would be very unwilling to use the water, especially if a high rate were charged. Without going into this difficult question, it will suffice to state that the Collector strongly recommended a general irrigation rate upon all fields within reach of the canal water. He thought that under such circumstances the villagers would very soon avail themselves of it, especially if the rate did not exceed a rupee or two shillings an acre.

There is, however, to a certain extent, a compensating influence in droughts and floods. One part of Balasor, namely, the triangular tract between the Sálandí river, the Cuttack high road, and the District boundary, lies high. The country on the north of this triangle is rather lower, as also are the *parganás* on the west and north-west of Balasor town. While heavy floods drown the lowlands, the higher levels escape; but the fertility of the uplands is not increased in anything like a proportionate degree, as the very fact of their being higher causes the river water to flow off the more

suddenly. If the floods are caused by an excessive local rainfall, which occasionally happens, the dry uplands profit in a more nearly commensurate ratio. But Balasor District does not present such extremes of dryness or moisture, that any considerable area ordinarily lies fallow in the uplands for want of rain, or upon the lower levels on account of the marshy character of the land. In years when there is a scanty rainfall, however, the low-lying tracts make up in an important degree, by their freedom from flood, for the loss of crops in the arid higher levels. The *pát*, or cup lands, produce magnificent harvests in dry seasons, while the higher tracts suffer severely. Thus, in 1869-70, the high triangular tract, mentioned above, yielded only half a crop; but the cup-lands so liberally compensated for their sterility, that the Collector refused to apply to Government for relief measures, and the result amply justified his decision.

It may be accepted as a rule in Balasor, therefore, that in years of drought the sterility of the higher levels may often be compensated by the increased fertility of the lowlands. But, in years of excessive floods, the small amount of upland country cannot produce a commensurate increase to the loss of crops in the low-lying tracts. Generally speaking, therefore, a year of flood does more harm than a year of moderate drought, as the seven following instances prove. In 1823 the price of unhusked rice rose to 35 *sers* per rupee, or 3s. 2d. per hundredweight, in consequence of floods. In 1831 and 1832 it rose to 34 *sers* per rupee, or 3s. 4d. per hundredweight, for the same reason. On the other hand, the years 1836, 1839, and 1840 were seasons of drought. In the first of these, unhusked rice rose only to 56 *sers* per rupee, or 2s. per hundredweight; in the second, to 38 *sers* per rupee, or 3s. per hundredweight; and in the third, to 42 *sers* per rupee, or 2s. 8d. a hundredweight. In 1848 floods again raised the price of unhusked rice to 34 *sers* per rupee, or 3s. 4d. a hundredweight. But while the general effect of floods is to raise prices higher than droughts, a total absence of rain produces the climax of misery. Thus, in the great famine year of 1865-66, the price of unhusked rice rose to 8 *sers* per rupee, or 14s. a hundredweight; and husked rice to the starvation rate of 3 of per rupee, or £1, 14s. 6d. a hundredweight.

Famine Warnings.—Local prices have returned to nearly the same level as before the famine of 1866. The Collector believes that they will never quite do so, as the price of all commodities has

risen, or, in other words, the purchasing power of money has decreased, in Balasor. The famine of 1866 has now ceased to exercise any influence upon the price of food in the District. The average retail price of common husked rice in the month of January may be stated at 33 *sers* per rupee, or 3s. 5d. a hundredweight. If the price should rise to 16½ *sers* per rupee, or 6s. 9d. a hundredweight, in that month, preparations should at once be made for a famine. This rate, viz. 16½ *sers* per rupee, or 6s. 9d. a hundredweight, in January would, according to the average rise in prices as the year advances, decrease to 12½ *sers* per rupee, or 9s. a hundredweight, in March; to 8 *sers* per rupee, or 14s. per hundredweight, in May; and probably before the end of July no rice would be left in the District.

The Collector, Mr. Beames, who has studied the subject very carefully, reports that in the event of rice ever rising in January to the rate of 16½ *sers* for the rupee, or 6s. 9d. a hundredweight, the Government should be warned of the approach of famine. He believes the whole moral of the terrible calamity of 1866 is, to 'get rice into Orissa before the end of March, if there is any serious tightness in January.' Among the non-agricultural classes, a hired labourer, with his wife and two children, cannot earn more than Rs. 6 or 12s. a month. Of this they have to spend, as nearly as possible, Rs. 3 or 6s. for rice when it is 33 *sers* for the rupee, or 3s. 5d. a hundredweight. The smallest amount that would sustain the working powers of such a family is 62 *sers* or something over a hundredweight of rice a month; and if rice rose to the rate of 16½ *sers* per rupee, or 6s. 9d. a hundredweight, two-thirds of their income would go for the single item of rice alone, calculating that they only ate enough to keep them alive. When rice rises to 12½ *sers* for the rupee, or 9s. a hundredweight, the non-cultivating classes have to begin to do without it. They would naturally betake themselves to split-peas and other pulses. But, unfortunately, in Balasor District these crops are scarcely grown at all. The whole land is under rice, and if rice fails, everything fails. The agricultural classes would be a little better off, as they would start with a store of grain, and be able to prolong the struggle by the sale of their cattle. They would not begin to starve till the rains set in. The District depends almost entirely upon its winter rice crop (*sárad*). The autumn crop is insignificant, where it is grown at all; and in some *parganás* it is unknown. It could nowhere make up for the loss of the winter harvest. The means of importation at the disposal of the District

consist of the Orissa Trunk Road and the seaports. The former is metalled and bridged, except at the larger rivers, which are supplied with good ferry-boats. But the cost of the long land transit is very great. Until the introduction of a regular steam traffic in 1871, few of the river ports were accessible during the southern monsoon, the very season in which a famine would reach its maximum intensity. Hence the imperative duty of the officer in charge of the District to keep his eye upon the harvests and the state of the markets, and to give timely notice to the higher authorities before the ports are closed in March. It is vain to expect any relief from inland by means of the rivers. They issue from countries which, in times of scarcity, are even worse off than Balasor.

THE FAMINE OF 1866.—The following is a brief sketch, so far as regards Balasor District, of the disastrous famine of 1865-66, compiled from the Report of the Famine Commissioner (folio, 2 vols. Calcutta 1867). The rice crop of Balasor in 1864 was an unusually good one, and the exports enormous, the sea exports in 1864-65 alone amounting to about 800,000 *maunds*, or say 30,000 tons. In 1865 no alarm seems to have been felt regarding the safety of the cold-weather or *sárad* rice crop till September, or even later, prices not having then gone very much higher than the point to which exportations had already brought them, viz. from 23 to 20 *sers* per rupee, or from 4s. 10d. to 5s. 7d. a hundredweight. The first report from the Collector is dated the 26th October 1865, enclosing a petition from certain *zamindárs* praying to be allowed an extension of time to pay their revenue, and setting forth—(1) That the crops are ruined; (2) that the *rayats*, being unable to obtain advances, cannot pay their rents; (3) that the cultivators blindly disposed of all their produce and kept no stock in hand, owing to the over-exportation. The Collector supported the *zamindárs'* statements, and solicited a favourable consideration of their petition, which was, however, rejected by the Board of Revenue. In November, prices had gone up to 16 and 11 *sers* per rupee, or to 7s. and 10s. 2d. a hundredweight.

In December, a public meeting of the inhabitants was called, at which a Relief Committee was appointed. The Committee came to the conclusion that no immediate measures of relief were required in the District, and that there would be no call on them for funds till February. Early in the year an extraordinary increase of violent crimes against property took place; the houses of those who were

supposed to possess grain were attacked and plundered by their neighbours, evidently for the purpose of getting food. At the end of January, the Committee, finding the poor flocking into the town, invited subscriptions and purchased a store of rice; and on the 13th February they commenced a gratuitous distribution of food at the pilgrim's rest-house or *dharmsálá*. The allowance for each person was at first 16 ozs. of rice, but this was soon reduced to 12 ozs., besides a little pulse (*dál*) and vegetables. The number of applicants for relief was at first 1300 per diem, but it fell to 841 as soon as the Committee insisted on making such of the paupers perform light labour as were capable of it.

In March and April the number of starving people in the town rapidly increased; and on the 2d May the Commissioner reported that, owing to the extraordinary rise in prices, it had been for some months beyond the means of the poorer classes to procure sufficient rice to support life, and that they were eking out a miserable subsistence by eating roots, herbs, and leaves. The general population had fallen into a state of dejection, and had lost all energy. They were swarming into the villages, and there dying of cholera, dysentery, or hunger. Even in Balasor town, the organized relief was utterly insufficient to meet the need of food. A distribution, which the Commissioner witnessed in April, was a scene of utter confusion; the starving crowds were beyond management; they seized the food as soon as they saw it, and even fell on the Commissioner, snatching from his hands and pockets the *pice* which he intended to distribute. So uncontrollable was the attack of the paupers on the pots of cooked food, that for a time the Committee was obliged to give out uncooked rice; but in Balasor, as in other Districts, it was soon found that the rice so given was devoured raw, and therefore the Committee reverted to cooked food.

The Committee also sent out money and rice to the Bhadrakh Subdivision, and assigned small sums for distribution by the missionaries at Jaleswar and elsewhere; opened relief centres at Balasor and Soro; made a grant of £100 to the Executive Engineer for the construction of a road in the interior of the District; set on foot several special works in Balasor town for employing those more or less able to labour; made arrangements for the immediate removal of the sick and helpless from the town and roads to the pilgrim hospital, etc. etc. In spite of the efforts of the Committee, the mortality in the town was lamentably great; but it was explained

that nine-tenths of the deaths were of strangers who had come in from a distance, and who were beyond recovery when they reached the town. On the 27th June it was reported that 700 infirm and sick were being fed daily at the hospital, 5000 were in receipt of cooked food at the *dharmsálá*, and 2000 were employed on light labour, and paid in daily wages of uncooked rice.

The private subscriptions raised in the District and in Calcutta were supplemented in the middle of May by a Government grant of £1000 from the balance of the North-Western Provinces Relief Fund; and a sum of £6000 was allotted to the Superintending Engineer. That officer reported, however, that employment of labour was impracticable for want of rice.

Government grain imports were commenced in June. On the 9th of that month a steamer arrived with 5000 *maunds* of rice. The cost price was Rs. 4. 8. 0 per *maund;* and the Collector was directed to take at this price whatever was required for the public departments and the Relief Committee, and to sell the rest to the public. The steamer arrived with a second cargo on the 20th June, and was kept employed in this service through the following month. Up to the end of July, 5998 bags (nominally 11,996 *maunds*) had been supplied to Balasor from Calcutta by sea; another ship with 10,000 bags was expected to arrive from Negapatam. In addition to this, it was reported that 15,000 *maunds* more would be required to be landed at Balasor town for the supply of the central part of the District, besides from 5000 to 10,000 *maunds* to be landed at a port farther south, for the Bhadrakh Subdivision.

Private importations by land from Midnapur and Hijili into the north of the District were considerable, but still hardly sufficient to meet the demand from day to day. Traders, too, began to import from Calcutta through the Hijili river and thence to Balasor on pack-bullocks; but this traffic was stopped in the middle of June by the rains, which made the unmetalled roads impassable. A considerable quantity of grain was also ordered on private account from the Madras ports; a portion was despatched from Coringa, but some of the sloops being wrecked, the rest did not dare to start till fairer weather set in. Thus the rice did not arrive till September, after the greatest urgency was past, and too late to yield much, if any, profit to the speculators.

Government rice shops were opened early in July at several places in the town and the interior of the District, for the sale of rice to all

comers at a price only just below the market rate. Three shops were also opened by the Relief Committee, for sale of rice at low prices to those who were considered in need of such relief. Unfortunately, the relief operations received a check, just at the time when they were in full operation, by a failure in the supply of rice. A little rice was introduced by sea on the 4th August, but on the 9th the Collector reported that his stock had become exhausted. At this very time, too, a vessel was lying at the mouth of the Balasor river with a cargo of 10,000 *maunds* of rice consigned to the Collector. Her draught of water, however, was so great, that she could not come within eight miles of the shore; and the country boats and sloops could not get out to her without the assistance of a towing steamer. Unhappily, no steamer was available at the time; and ultimately bad weather set in, which drove the ship across the Bay of Bengal, into Akyáb. Thus the supply of rice was unexpectedly snatched away almost from the mouths of the people, the result of which was much misery throughout the first half of August. It was during this fortnight that the mortality among the paupers in Balasor town reached its appalling maximum. In the first twelve days of August, the police removed 1013 corpses from the town. These deaths were not the immediate consequence of starvation alone, but of exposure also. Bad weather set in; and the state of debility and disease to which the paupers had been reduced by insufficiency of food was such, that they succumbed at once when exposed to rain and cold.

The distress in the Bhadrakh Subdivision, in the south of the District, was also most severe. In March and April 1866, grain robberies and incendiarism had appeared to an alarming extent; and in May it was reported that rice was selling at the rate of $3\frac{1}{2}$ *sers* for the rupee, and that numbers of people were starving. A sum of £10 in money and 100 *maunds* of rice was immediately despatched from Balasor, followed shortly afterwards by a further sum of £100. A branch Relief Committee was established, which commenced distributions on the 7th June. Able-bodied paupers were refused relief unless they would work. At first they declined these terms, but gradually accepted the employment offered; and by the 30th June, 1276 were working and 84 receiving gratuitous relief. On the 1st July, the officer in charge of the operations sent an urgent request for rice from Balasor, wherewith to open relief centres in the interior; and it was resolved to supply the Subdivision

by rice imported by the way of the Dhámrá river. The number relieved had risen to 2500 daily who were able to work, and 800 infirm who were cared for at the hospital. Delays, however, took place, and accidents occurred, and it was not till the 10th August that rice arrived sufficient to enable the Committee to open the proposed centres in the interior, and to afford relief on any considerable scale. Heavy inundations added to the suffering. In the eastern part of the Subdivision, the early rice crop was injured, houses were swept away, and the people were perishing of cold, exposure, and hunger, being cut off by the flood from access to supplies. The grain-dealers had closed their shops, declaring that they had no rice left. On the 25th August, rice was sold at Dhámnagar, ten miles south of Bhadrakh, at the rate of one rupee the *ser*, or £5, 12s. 0d. per hundredweight, the highest price mentioned as having been reached at any time or place during the famine. Supplies were kept up at the interior relief centres, but with great difficulty, from Balasor. In September a second inundation occurred, which fearfully enhanced the difficulties and distresses of the people. On the 25th October it was reported that the distress was still very great—that the country everywhere bore traces of famine, inundation, and pestilence. Unsown lands, ruined houses, and living skeletons met the eye everywhere. In the preceding week the daily totals of persons who had received gratuitous relief at the eleven centres which had been established in the Subdivision amounted to 203,000, giving a daily average of 29,000.

The coming in of the new rice crop gradually relieved the distress. On November 5th, Government sales were stopped; and the Collector reported that public health was improving and trade reviving. Soon after, the majority of the paupers dispersed and returned to their homes. The Relief Committee finally stopped operations on the 24th November. The total quantity of imported rice received in Balasor District up to the 24th November was 75,427 *maunds*, of which 4473 *maunds* were sold for cash to Government Departments at full cost price; 10,526 were sold to the public at rates a little below market prices; and 60,428 *maunds* were transferred to the Relief Committee, of which 46,816 *maunds* were distributed gratuitously, and 11,643 *maunds* were sold at cheap rates to selected individuals. The daily average number of persons relieved from the 16th June to the 24th November was 26,497,—namely, 4552 employed on light labour, and 21,945 who received

gratuitous relief. The greatest difficulty was experienced in getting the people to work at all; and the Collector reported that the Uriyás would rather die than go even a few miles from their homes to procure work.

The maximum number of centres open for gratuitous relief, including eleven in the Bhadrakh Subdivision, was twenty-two, the distance between them ranging from five to twenty-two miles, but averaging twelve miles. Shops, for the sale of rice to those who had money, were opened at seven places besides Balasor town, in which three shops were established. At the relief centres, up to the 12th September, one meal a day was given. The quantity was first fixed at 5 *chhatáks* (10 ozs.) of rice, in addition to pulse and vegetables. Subsequently, on the recommendation of the Civil Surgeon, it was raised to 8 *chhatáks* (16 ozs.); and from September it was served out in two daily meals.

To the relief from the supply of grain was added the disbursement of a considerable sum of money in the District, viz. Government grant from balance of the North-Western Provinces Relief Fund, £18,100; granted by Calcutta Relief Committee, £5100; local subscriptions, £2092; total, £25,292. Of the money placed at the disposal of the Relief Committee, £12,600 was paid to Government as the price of imported rice supplied to them, which being deducted, £12,692 is left as the cash expenditure on local relief.

The Famine Commissioners in their Report give the following general review of the operations, etc. :—'In reviewing the progress of events in Balasor District, we observe that after the famine had unmistakeably declared itself, the local endeavours to meet it were crippled by want of funds. Until May, the possibility of obtaining assistance on such a scale as that on which it was subsequently obtained, from the balance of the North-West Famine Relief Fund and from Government, was never contemplated; nor, indeed, was any adequate idea entertained of the dimensions which the requirements for aid would assume. "There were starving people in April," Dr. Jackson has said; "but we did not realize that they would come pouring in in such thousands." Nor, indeed, could these numbers have been anticipated by the residents of Balasor, for many of the paupers came from other Districts and from the estates of the Tributary Rájás.

'As the distress became more apparent, the Local Committee were cramped in their action from the necessity under which they sup-

posed themselves to lie of economizing their resources, and from their want of knowledge that more money could be had than they could themselves raise.

'After the importation of rice was undertaken, it was more than once necessary to restrict the District operations, in consequence of the scantiness and uncertainty of the supply. This would, to some extent, have been avoided, and much additional relief would have been given to Balasor District in general, if the *Conqueror* or any other similar private steamer had been engaged from the first, and employed to assist the *Nemesis* in supplying the District.

'The mortality in and about Balasor town, and the famine sights to be seen there, were more terrible than at any other place in Bengal or Orissa. The mass of paupers assembled was larger than it was elsewhere. The town lay in the way of many who left their homes in hopes of reaching Calcutta. Of these, many, exhausted and disabled by hunger and disease from going farther, remained to swell the number who were fed by the Relief Committee. Subjects of the neighbouring Tributary Rájás also flocked in to share in the relief. These, as well as the travellers generally, arrived in such a condition that they were beyond recovery. In the early months, cholera, and subsequently other bowel complaints caused by bad and insufficient food, carried off hundreds; the least change of weather to cold or damp was immediately fatal. Many who were caught by bad weather at a distance from the places of distribution had not strength to crawl back to get their meal, and so died where they lay in out-houses, or by the way-side. Even in fine weather, many were found dead in the mornings where they had lain down to sleep at night; others, when they went to drink, fell into the water through sheer debility, and were drowned. Most of those who received the imported rice in June and early in July were probably too far gone to be saved.

'The number of paupers ascertained to have died in the town of Balasor is as follows:—June, 1371; July, 1976; August, 2693; September, 1950; and October, 910; total, 8900, of whom 6132 died in the streets, and 2768 in the hospital. The rise and fall of the mortality in the town may be taken as an index of the fluctuations in the District generally. The mortality culminated in August, and was to some extent affected by the rains and inundations of that month.'

Roads.—The main road of the District is the Trunk Road from

Calcutta, which enters Balasor from Midnapur, and passes through the entire length of the District into Cuttack. Its length in Balasor District is about 100 miles, and it is under the management of the Public Works Department. Besides the Trunk Road, and a number of minor village tracks, there are twenty-five roads in Balasor District, with a total length of 149 miles. The principal of these are—(1) Balasor Port road; (2) Balasor to Mitrapur; (3) Balasor to Bálrámgarí; (4) Soro to Charakmárí; (5) Distillery road; (6) Bastá to Baliápál; (7) Barhampur to Garhpádá; (8) Balasor to Básudebpur; (9) Soro to Anántpur; (10) Soro to Kupárí; (11) Ránítaláo to Kupárí road; (12) Agarpárá to Bhadrakh; (13) Bhadrakh station roads; (14) Bárikpur to Dhámnagar; (15) Bhadrakh to Chándbálí; (16) Barang to Básudebpur road; (17) Tarkiá to Kamardá; (18) Baliápál to Kamardá; (19) Singlá to Nangaleswar; (20) Kupárí to Agarpárá; (21) Sawaranjí to Kánpur; (22) Banagá to Talpádá. These roads are all under the management of the District Road Committee.

The Report of the Balasor District Road Fund for 1874-75, published in the *Calcutta Gazette* of 19th April 1876, shows that the total income for the year was £2010, of which £1208 was derived from the Road Cess, and £76 from ferry tolls; £673 being the Government grant in aid. The expenditure during the year amounted to £2041, of which £120 was expended on original works, and £1127 on repairs. The Committee consists of three European civilians with the Collector as chairman, a missionary, and ten native gentlemen. The Collector, in forwarding the Annual Report of the Committee, thus records his views with regard to the results of the Road Cess:—

'It is satisfactory to be able to state my opinion that the Road Cess Act is, on the whole, not unpopular. This is much to say of a new measure of taxation. The project of raising, by local assessment, funds for the maintenance of local communications, is one of those simple and intelligible arrangements which commend themselves at once to the plain practical sense of the people. Every one understands the object of the tax, and the advantages to be gained by a judicious expenditure of its proceeds. A considerable amount of real, lively, personal interest in the subject has been awakened in persons who reside close to, or have business connections with, undertakings which have been successfully taken in hand. A great step has thus been gained, both towards the introduction of self-government, and towards the attainment of important material advantages. Experience shows that public spirit, and a disposition

to interest themselves in affairs relating to the general welfare, and making a gradual and steady advance among the native gentlemen of this District; and I have frequently occasion to regret that some of those whose services on the Committee might be most useful, reside too far off to permit of their attendance.'

MANUFACTURES.—The staple manufacture of Orissa is salt-making, which is increasing in Balasor and Puri Districts, but has declined in Cuttack. This manufacture is susceptible of unlimited development. It is carried out in the saline tract along the sea coast, chiefly by means of artificial evaporation, the process being as follows:—At the beginning of December, the contractor selects his locality about a quarter or half a mile from the sea, and engages a class of men called *chuliyás*, or heads of salt gangs. These men receive 6 *ánnás* a *maund*, or 1s. a hundredweight, for whatever amount of salt they turn out. They, in their turn, engage working parties of *malangis*, who are paid at the rate of from 2 to 3 *ánnás*, or from 3d. to 4½d. a day. The ground is first marked out by a shallow trench, and the grasses and bushes are carefully dug up and removed. A deep ditch is next dug from the sea, by means of which, twice a month, the spring tides overflow the salt field and fill a number of reservoirs, four feet in diameter, and two or three feet deep. A mound of earth is then piled up to the height of two feet, and from three to four in diameter. It is next hollowed out into the shape of a bowl, plastered inside with clay, and furnished with a hole at the bottom, covered with a layer of grass six inches thick. The salt-makers fill this bowl with saline earth scraped off the adjacent land, and pour the sea-water on it from the top. By the end of six hours the water has drained through into a pit at the bottom, and runs down a thatched trench towards a reservoir, whence it is transferred to the evaporators. The latter consist of a hundred and sixty to two hundred little unglazed earthenware pots, fastened together by stiff, tenacious mud, and holding two quarts each. The neighbouring plains supply grass for the fuel. Six hours' boiling completes the process. The brine, which consisted in the first place of sea-water charged to its maximum power of solution by percolating through the bowls of salt earth, subsides into dirty crystals at the bottom of the pots. It is then ladled out in spoons made of half cocoa-nuts. The whole process is as rude and careless as can well be imagined. The total cost of manufacture is estimated at 12 *ánnás* a *maund*, or 2s. 0d. a hundredweight, which, with the Government duty of Rs.

3. 4. 0 a *maund*, or 8s. 10d. a hundredweight, makes a total cost of Rs. 4 a *maund*, or 10s. 10d. a hundredweight. A description of solar salt-making will be found in my Statistical Account of Purí District (vol. xix.). During the year 1875-76 the total amount of salt manufactured in Balasor was 197,335 *maunds*, or 7224 tons, yielding a total revenue to Government of £48,351. The quantity of salt sold for consumption in the District was 98,810 *maunds*, or 3617 tons, the average consumption being 5 *sers* 2 *chhatáks* or 10 lbs. 4 ozs. per head of the population. With the exception of salt-making, the only manufactures in the District worth mention are the making of brass vessels and ornaments, and the weaving of coarse cloth.

TRADE.—The principal articles of commerce in Balasor District are European cotton goods and metals among the imports, and rice and paddy among the exports. In favourable years an enormous export trade in rice and paddy is carried on, both by land and sea, the sea-borne trade having developed enormously of late years. The following sketch of the District trade is quoted from a report on the subject published in *The Statistical Reporter* for April 1876:—

'The District of Balasor is a vast rice plain, in which, besides the fringes of jungle along the sea-board to the east, and along the edge of the hill country to the west, the spots of uncultivated land occupy a very small space. A Census made by Mr. (now Sir Henry) Ricketts, in the year 1832, returned the population at 322 persons to the square mile, and the Census of 1872 fixes it at 373 persons. Compared, therefore, with other well-cultivated Districts, the pressure of the population has been, and still is, light. Excepting narrow strips along the banks of the rivers, and the little garden plots in the homesteads of the peasants, where miscellaneous crops are grown, it may be broadly stated that the whole District produces rice, and nothing but rice. The yield exceeds the requirements of the people considerably in ordinary years, and largely in favourable years; and a portion of the surplus is annually exported. In former years, exportation by sea was entirely restricted to the six months of calm weather, commencing about October, known as the north-east monsoon, and was carried on in native craft alone. Since the introduction, however, of a steam service between Calcutta and the Balasor ports in 1871, it has been carried on throughout the year, and the operations of traffic have become more amenable to the laws of supply and demand.

'Before passing on to the details of the sea-borne trade, it will be proper to mention here that the trade of the District is by no means confined to its ports. When rice is cheap in Balasor, large numbers of carters and bullock-drivers from Midnapur travel southwards in search of it, and some even occasionally find their way from Bánkurá and Bardwán. Large quantities of rice are thus conveyed northwards along the Trunk Road. The mart of Bálighái, near Contai, in Midnapur, is the principal emporium sought by this inland traffic; and it not only takes a large annual supply of rice from Balasor, but also a considerable quantity of timber. It was ascertained by actual enumeration of the carts and bullocks which passed the Jaleswar police station, situated on the edge of the Trunk Road, at a distance of 3½ miles from the northern boundary of the District, that in three months—January, February, and March 1874—about 287,000 *maunds* of rice passed northwards along the road. And in addition to the Trunk Road traffic, numbers of pack bullocks find their way across country all along the north boundary of Balasor District.

'In order to arrive at a correct understanding of the circumstances which mainly influence the trade of Balasor, it is necessary briefly to advert to the physical conditions of the District. In common with other tracts devoted almost exclusively to the production of rice, it is liable to a more or less complete annihilation of its food supply by drought; as, for example, in the famine of 1866. But there is another, and perhaps the most appalling of all forms of natural calamity to which Balasor is, from its situation, especially liable. Placed at the north-west corner of the Bay of Bengal, it is exposed to the full brunt of the cyclones, which are generated at sea, and, travelling in a north-westerly course up the Bay, burst upon its shores accompanied by irresistible storm-waves. So far back as we have records, we find that these scourges have periodically devastated Balasor District. On the night of the 27th May 1823 there occurred a cyclone and storm-wave, which is said to have been the third calamity of a similar kind that has occurred within eight years. It is related that the sea suddenly rose and penetrated six miles inland, carrying with it large ships and sweeping away whole villages with every living creature in them, not even the vestige of a human habitation being left. The severest disaster of this kind on record occurred on the evening and night of the 31st October 1831. Along the whole extent of the coast the country was submerged by a storm-

wave seven to fifteen feet in height, which breached the Trunk Road at a point nine miles, as the crow flies, from the coast. Mr. Ricketts, the Collector, after detailed inquiry, estimated that 26,000 persons were destroyed by this cyclone and storm-wave. A similar calamity occurred on the 7th October 1832. On this occasion the cyclone is said to have been more violent, but the storm-wave less destructive, than in the preceding year. These calamities were followed by a drought in 1833, by which the failure of a fresh supply of food was superadded to the destruction of the rice crop by the previous cyclones. Mr. Ricketts reported that in these three years 50,000 human beings were destroyed by drowning and starvation. Cyclones also occurred on the 13th October 1848 and on the 22d October 1851. These appear to have been accompanied by slight storm-waves. Fortunately, the two latest cyclones, those of the 1st July 1872 and of the 15th October 1874, were unaccompanied by their formidable coadjutors in the work of destruction.

'When the crops are destroyed by drought or storm-wave, the price of grain rises, the operations of trade are contracted, and fewer ships arrive to purchase rice. This diversion of shipping from the ports of the District affects both its imports and exports, and the extent of the declination of trade is regulated by the greater or less severity and destructiveness of the antecedent calamity. Comparing the list of natural calamities with the statistics of sea-borne trade, we shall not be surprised to find that, during the year 1833-34, after the cyclones and storm-waves of 1831 and 1832 and the drought of 1833, the amount of rice exported had fallen to 36,000 *maunds*, as compared with 542,000 *maunds* exported in 1825-26, eight years previously. To the cyclone of 1848 it may be attributed that in 1848-49 only 367,000 *maunds* of rice were exported, against 698,000 in the preceding year. In 1850-51, 988,900 *maunds* of rice were exported. In the succeeding year, after the cyclone of October 1851, only 345,000 *maunds* were exported. The drought of 1865-66 had the effect of arresting the District trade almost completely for two years.

'Probably the most satisfactory method of conveying information as to the growth of the sea-borne trade of Balasor, and as to its staples of commerce, will be to notice briefly the value of each year's imports and exports, together with the principal items of which each are composed, so far as these figures can at the present time be ascertained with certainty. The following account is taken

from the records of the Balasor Collectorate; and all information as to the correctness of which there is room for doubt has been carefully excluded.

'In the year 1811, it was stated in a report written by the Collector of Customs, that the exports of rice from the southern parts of Balasor District amounted to 1,100,000 *maunds*. Mr. Ricketts, Collector of Balasor, writing in the year 1835, records that in 1825-26 the amount of grain exported was 542,050 *maunds*; that subsequently to that year it decreased gradually, until in 1833-34 it was only 35,936 *maunds*. The same officer, writing in 1853, states that from 1836 to 1843 the exports of rice amounted to 1,894,332 *maunds*, giving a yearly average of 236,800 *maunds*; and that from 1845 to 1852 they amounted to 5,337,822 *maunds*, giving a yearly average of 667,300 *maunds*.

'The trade of the Balasor ports from 1847-48 onwards will be illustrated by the following tables (pp. 341, 542), which show the total value of the traffic for each year, and also the details of the principal items of trade. In explanation of these tables, it may be stated that the figures of exports of paddy in 1856-57 include all rice, both husked and unhusked. A scarcity in 1857-58 accounts for the decrease in quantity, and increase in the value, of rice exported in that year. For the year 1866-67 the figures for imports do not include all the rice imported by Government during the great Orissa famine, as the greater proportion of the Government rice was not entered at the Custom House. From 1869-70 to 1874-75 the figures under 'rice' include all rice, both husked and unhusked. During the same years, among the imports, turmeric is included under the heading 'spices.' The returns for the year 1872-73 are admittedly incomplete. The steam service between Calcutta and the Balasor ports had then commenced to attract the most valuable portion of the traffic; but as there was no agency available for the proper registration of the cargoes of the steamers, the steamer traffic has not been included in the returns. It is probable that the figures given in the above statement are not more than a quarter of the real value of the imports for that year. It is also evident that the exports are materially understated:—

IMPORTS INTO BALASOR PORTS FOR EACH YEAR FROM 1848-49 TO 1874-75.

YEAR.	Tobacco		Betel-nuts.		Twist.	Piece-Goods.	Gunny-Bags.	Drugs.	Tur-meric.	Spices.	Marine Stores.	Cotton.	Coal.	Rice.		Paddy.		Metals.	Specie.	Total value of Imports.
	Mds.	*Rs.*	*Mds.*	*Rs.*	*Rs.*	*Rs.*	*Rs.*	*Rs.*	*Rs.*	*Rs.*	*Rs.*	*Rs.*	*Rs.*	*Mds.*	*Rs.*	*Rs.*	*Rs.*	*Rs.*	*Rs.*	*Rs.*
1847-48	2,649	10,586	4,282	5,471	7,162	1,387	...	26	1,416	736	51	1,170	...	...	...	...	...	3,326	...	48,419
1848-49	4,262	26,033	5,242	21,242	10,141	326	...	198	198	5,330	279	480	...	...	...	...	...	8,672	...	83,954
1849-50	3,979	21,531	3,732	15,925	14,842	1,216	...	79	338	4,743	6,211	...	...	...	...	...	...	6,963	...	83,253
1850-51	4,029	24,168	5,792	23,132	10,549	1,240	148	200	235	9,733	11,510	1,334	...	...	...	...	...	18,707	...	116,022
1851-52	5,801	34,039	7,157	28,329	17,534	1,133	...	486	3,004	8,418	290	...	...	...	...	...	...	29,929	...	152,832
1852-53	7,374	34,307	6,832	10,843	11,296	926	...	68	7,525	6,398	2,468	...	...	...	...	...	...	10,548	...	103,585
1853-54	5,113	30,321	6,625	26,545	19,863	1,083	...	501	20,246	10,132	5,041	3,163	...	...	...	...	...	17,434	...	157,098
1854-55	7,610	46,864	11,093	40,085	32,664	2,582	6	436	17,992	10,130	4,425	11,877	...	...	...	...	...	75,263	...	271,527
1855-56	7,061	44,794	10,736	47,264	26,305	5,174	818	189	10,002	9,462	10,003	13,782	...	...	...	...	...	22,990	...	202,839
1856-57	10,332	61,902	13,930	59,604	38,680	10,137	1,689	446	3,584	29,175	5,081	7,801	...	4,750	5,110	...	...	31,985	6,900	325,543
1857-58	3,132	31,106	10,717	46,978	29,367	5,390	41	243	...	11,904	4,240	154	...	...	...	...	...	34,683	...	181,096
1858-59	6,461	62,022	13,327	46,955	26,962	3,426	130	455	19,833	11,968	2,704	...	...	...	...	...	...	37,415	...	243,593
1859-60	8,209	49,343	11,907	47,754	27,689	8,151	49	823	8,214	15,238	3,631	...	...	...	...	...	...	51,286	...	237,276
1860-61	5,832	40,635	16,052	55,092	34,108	11,942	63	801	22,448	13,179	7,923	...	...	...	...	...	...	29,930	13,000	242,754
1861-62	5,894	59,029	13,730	53,657	28,017	5,210	959	619	194	16,130	8,035	2,485	...	6	12	...	...	33,496	33,700	265,986
1862-63	5,986	87,522	20,406	81,629	14,722	11,773	774	2,883	17,138	17,125	8,563	...	...	...	...	...	...	32,550	36,970	347,863
1863-64	5,394	74,452	11,768	51,289	9,533	10,359	4,775	2,330	268	19,983	2,393	4,615	10,168	15	21	1	8	32,184	80,700	342,982
1864-65	4,999	55,830	22,221	99,450	7,717	26,654	15,809	3,127	1,104	26,790	6,482	1,130	...	26	63	...	...	27,778	279,604	579,928
1865-66	...	...	...	...	...	...	13,729	...	...	...	...	...	...	2,898	9,519	...	...	...	60,800	271,434
1866-67	...	...	3,202	21,482	4,496	1,840	137	27,983	814	8,850	503	...	...	23,735	110,970	12,399	30,060	298	3,000	240,936
1867-68	...	...	23,717	83,375	14,178	12,142	...	208	14,420	32,070	615	...	...	1	5	...	...	9,857	...	265,383
1868-69	...	...	15,776	74,207	7,810	10,645	1,215	981	27,561	12,752	1,531	...	...	15	53	...	...	11,554	5,000	312,810
1869-70	2,943	39,803	...	...	8,362	8,177	...	...	...	29,775	...	...	...	...	...	...	...	17,481	112,600	356,556
1870-71	3,712	32,961	...	...	3,057	7,446	...	...	...	16,583	...	2,888	...	...	...	...	...	11,170	115,000	300,784
1871-72	5,643	72,379	...	...	26,321	80,728	...	...	...	46,079	...	5,739	...	...	...	...	...	49,891	105,600	614,126
1872-73	1,572	18,139	...	...	22,992	31,395	...	...	...	7,912	...	2,718	...	...	...	...	...	9,819	68,700	250,487
1873-74	8,585	115,017	...	...	245,681	340,785	...	...	...	35,695	...	11,235	300	...	...	...	...	426,984	123,004	1,713,158
1874-75	10,556	125,978	...	...	318,459	514,707	...	...	...	60,017	...	2,296	2,283	...	...	...	...	625,537	270,611	2,626,836

EXPORTS FROM BALASOR PORTS FOR EACH YEAR FROM 1848-49 TO 1874-75.

YEAR.	Turmeric.	Paddy.		Rice.		Other Grains.		Oil-seeds.		Timber.		Stone Platters.		Hides.		Deer Horns.		Jute.		Gall-nuts.	Specie.	Total value of Exports.
	Rs.	*Mds.*	*Rs*	*Mds.*	*Rs.*	*Mds.*	*Rs.*	*Mds.*	*Rs.*	*No.*	*Rs.*	*No.*	*Rs.*	*No.*	*Rs.*	*Mds*	*Rs.*	*Mds.*	*Rs.*	*Rs.*	*Rs.*	*Rs.*
1847-48	22	576,719	151,768	121,753	58,676	618	654	...	...	2,916	1,319	4,490	1,494	2,499	2,534	292	1,637	...	...	...	...	221,695
1848-49	...	335,354	86,592	31,870	12,748	209	254	...	...	1,589	400	5,173	1,798	...	...	283	1,570	...	...	...	...	106,952
1849-50	10	572,730	134,760	106,131	47,179	933	664	...	...	2,209	2,422	5,080	2,072	...	...	243	1,855	...	...	...	...	195,350
1850-51	...	659,293	178,818	329,252	154,943	239	233	...	...	396	3,900	7,730	3,282	...	...	247	1,482	46	69	...	...	349,549
1851-52	...	288,823	131,227	56,251	34,219	...	...	...	...	1,408	1,754	5,252	1,969	...	...	181	902	...	...	...	...	174,079
1852-53	...	417,713	169,523	23,000	15,037	590	433	136	536	3,440	4,305	1,641	395	...	...	323	1,625	463	364	...	...	199,774
1853-54	...	351,126	164,936	41,153	34,880	2,380	2,410	...	...	11,684	19,589	4,238	1,118	...	...	379	1,984	1,299	1,519	...	...	235,204
1854-55	...	307,651	100,764	132,079	88,775	583	495	...	...	193	3,762	3,523	1,073	...	...	98	506	524	533	...	...	207,990
1855-56	...	390,051	128,056	185,296	121,976	204	322	1,621	4,071	455	1,038	2,413	615	...	...	234	1,185	149	179	1,559	950	268,051
1856-57	...	728,453	...	...	...	3,757	...	...	...	...	...	...	...	...	...	355	...	...	...	...	...	...
1857-58	10,605	322,571	203,936	46,609	50,228	4,444	7,583	1,048	2,675	1,500	24,000	24,091	10,663	...	...	536	2,471	448	728	...	...	326,488
1858-59	...	561,250	443,909	61,983	87,940	79	170	1,185	3,190	10,895	16,455	15,246	6,244	...	...	275	1,559	1,307	1,426	307	...	609,292
1859-60	...	470,588	364,151	65,978	76,124	1,713	1,602	60	149	13,201	28,791	8,949	4,776	...	...	277	1,872	125	163	...	...	494,843
1860-61	...	317,640	187,330	61,186	53,191	1,165	1,590	...	...	34,667	13,802	2,025	736	325	81	306	1,813	308	380	1,807	...	295,648
1861-62	2,339	359,899	167,521	113,806	102,418	486	584	3,104	8,036	5,503	6,480	...	...	...	...	...	...	30	38	294	...	292,474
1862-63	...	201,076	86,708	188,279	203,558	60	115	1,567	887	7,639	6,645	...	...	...	...	105	597	522	805	27	...	313,318
1863-64	...	229,820	92,847	442,232	496,503	107	114	2,870	3,229	1	23	134	52	...	...	166	857	...	...	928	...	624,724
1864-65	265	176,254	112,449	630,423	823,920	1,327	2,260	1,035	2,721	...	...	160	28	...	...	11	49	31	58	291	...	937,795
1865-66	...	31,362	20,242	38,009	68,343	...	...	...	...	...	6,800	...	...	...	...	...	...	...	...	4,783	131,926	281,392
1866-67	...	26,196	25,133	2,313	8,480	5,336	2,257	...	...	...	...	...	...	4,500	27,000	82	531	1,990	974	2,032	24,500	94,570
1867-68	1,337	104,290	49,544	8,469	8,893	428	764	69	257	...	1,537	...	...	...	...	392	1,397	1,527	679	1,848	3,000	93,233
1868-69	...	89,937	82,956	38,440	56,641	125	250	...	...	...	794	...	...	...	...	276	2,505	18	90	6,594	...	160,815
1869-70	...	...	...	305,678	334,341	425	844	...	...	...	...	...	...	...	...	...	...	117	182	...	...	365,979
1870-71	...	...	...	443,067	399,595	1,135	2,014	...	...	...	...	...	...	...	...	...	...	614	1,335	...	...	443,075
1871-72	...	...	...	483,353	456,836	464	872	...	...	...	...	...	...	...	...	...	...	10,579	24,271	...	...	547,240
1872-73	...	...	...	403,534	338,723	8	20	...	...	...	...	...	...	...	...	...	...	57	149	...	...	399,206
1873-74	...	...	...	890,940	1,304,809	4,245	14,372	...	...	...	...	...	...	...	...	...	...	2,193	5,853	...	27,500	1,631,708
1874-75	...	...	...	1,041,168	1,709,917	5,038	23,573	...	...	...	...	...	...	...	...	...	...	2,907	8,560	...	39,170	2,138,305

'The ports which trade with Balasor are, firstly, Calcutta; secondly, the coast ports, from Bombay on the west to Arrakan on the east; and thirdly, foreign ports, as the Maldive Islands, Ceylon, occasionally the Mauritius, and rarely the Cape of Good Hope. A proportion nearly approximating to the total of commodities imported comes from Calcutta, and by far the larger proportion of the exports also seek Calcutta as their destination; but the proportion of exports to other coast ports and to foreign ports is much larger than that of the imports received from them. ' Rejecting as incorrect the figures for 1872-73, and taking only those for the two past years, which may be depended upon, we find that imports from Calcutta exceeded 98½ per cent. of the whole; imports from ports in other Presidencies nearly amounted to 1½ per cent., while imports from foreign ports only amounted to 0·08 per cent. During 1874-75 the imports from foreign ports consisted only of Rs. 300 worth of cocoa-nuts imported from Ceylon, the foreign trade of Balasor having been nominally much curtailed by the recent transfer of the Laccadive Islands from the list of foreign to that of home ports. Of the exports during the past two years, 83 per cent. were consigned to Calcutta, 13 per cent. to ports in other Presidencies than Bengal, 2½ per cent. to foreign ports, and the remaining 1½ per cent. to ports in Bengal other than Calcutta. Vessels originally starting from ports other than Calcutta usually seek either Calcutta first, and there discharge their cargoes before proceeding to Balasor to take in cargoes of rice, or else arrive in ballast. Of the imports during the past two years, nearly 25 per cent. in value consisted of metals, 19 per cent. of piece-goods, 13 per cent. of twist, 5½ per cent. of tobacco, and 2 per cent. of spices. Imported metals consist principally of copper, zinc, and tin, used for the manufacture of domestic utensils, and also of personal ornaments. The weight of the brass ornaments commonly worn by the women and children of the District is surprising, considering the labour and inconvenience which the fashion must entail. Children five years old may be seen wearing on each wrist a monstrous bracelet weighing two pounds. The other articles of import are very varied and miscellaneous. The following articles are imported in considerable quantities:—Gunny-bags, drugs, apparel, oil, sugar, and seeds.

'Nearly 80 per cent. of the total exports consists of rice. The quantity of husked rice exported is now about double that of unhusked rice, and its value about quadruple. Until recent

years, by far the largest portion of the rice shipped was unhusked; and the change is due to the introduction of steamers and to the enhanced freights, which render it unprofitable to ship the bulkier article. The other principal articles of export are specie, of which considerable amounts are both imported and exported, owing to the absence as yet of any facilities of exchange in Orissa; hides; oil-seeds; timber, chiefly *sál* and teak from the hill territory; hill products of various descriptions, in which there is a hopeful and increasing traffic, such as lac, gums and resins, wax, myrobolans, gall-nuts, and nux vomica; stone platters turned out of black chlorite, a specialty of Balasor District and the adjoining Nilgiri hills; brass-ware manufactured from imported metal; and horns.'

Administrative History.—The District of Balasor was acquired, with the rest of Orissa, in 1803. The early history of its jurisdiction and administrative changes are given at the beginning of this Statistical Account. At first, it formed a mere Subdivision of Cuttack, and very little was spent upon it. The early records have been destroyed; but, so far as I can learn, the separate expenditure on the civil administration of Balasor in 1804 was only £77, 18s. 0d. In 1860-61 the revenue amounted to £58,465, and the expenditure to £44,071. In 1870-71 the gross revenue amounted to £102,052, and the expenditure to £51,620. After deducting all items which do not properly belong to the District revenue or expenditure, such as transfer accounts, deposits, etc., the *net* revenue (including salt) of Balasor in 1870-71 stood at £90,474, and the *net* civil expenditure at £32,414. Many items of expenditure, however, appear to be omitted from the Account. I have no details of the revenue and expenditure for earlier years, but the following table exhibits the receipts and disbursements under each heading of revenue and expenditure in 1870-71. As explained below, several of the items are not properly speaking actual receipts or expenditure at all, but are of the nature of deposits or transfer accounts. I print the table (on the opposite page) precisely as it has been furnished to me by the Collector.

The Land Tax amounted in 1830 to £29,321; in 1850 to £40,480; and in 1870-71, to £41,911. The subdivision of property has gone on rapidly under British rule. In 1826 the District was divided into 677 separate estates; in 1870-71 these had almost exactly doubled, the number being 1357. Not only have

[*Sentence continued on page 346.*

REVENUE AND EXPENDITURE OF BALASOR DISTRICT IN THE YEAR 1870-71.

REVENUE.		EXPENDITURE.	
1. Land Revenue,	£41,910 19 3	1 General Payments, viz. Salaries of Civil and Judicial Officers, including Contingencies, Travelling, etc.,	£24,714 17 2
2. Salt Revenue,	30,444 9 0	2. Money Orders,	9,396 15 6
3. *Abkárí*,	10,074 17 5	3. Public Works Department,	7,700 0 0
4. Stamps,	2,809 5 5	4. Local Funds,	3,134 2 2
5. Income Tax,	1,533 2 2	5. R. T. Receipts,	2,147 19 1
6. Fines,	220 8 6	6. Deposits,	4,526 8 2
7. Registration,	219 4 6		
8. Jail Manufactures,	329 7 9		
9. Postal Remittances,	630 12 3		
10. Local Funds,	2,302 10 0		
11. Deposits,	4,644 14 11		
12. R. T. Receipts,	996 12 6		
13. Miscellaneous, including Money Orders,	5,936 3 2		
Gross Revenue,	£102,052 6 10	Gross Expenditure,	£51,620 2 1

To obtain the net revenue, items Nos. 11, 12, and 13 must be deducted from the receipt side of the account; similarly, on the expenditure side, items Nos. 2, 4, 5, and 6 must also be omitted. If these deductions are made, the *net* revenue of Balasor District amounted to £99,474, 16s. 3d. (including the salt duty, which, however, is rather an item of imperial than local revenue), and the expenditure to £32,414, 17s. 2d. Many items of expenditure, such as the cost of the police, jail, and education departments, do not appear at all in the above table, unless they are included in item No. 1 on the expenditure side of the Account.

Sentence continued from page 344.]
estates become smaller, but the number of registered proprietors or coparceners on each estate has greatly increased. Thus, in 1828, the number of registered proprietors was 863; in 1870-71 their number was 4058. In 1828 the average revenue paid by each separate estate was £46; in 1870-71 it was £30, 18s. 0d. Again, in 1828 each registered proprietor was a man of importance, and paid £34 of Government rental. But the subdivision of estates has now reached such a point, that in spite of several extensive estates in the hands of Bengalís, the average Government rental paid by each proprietor is only £10, 6s. 0d. per annum; and among the mass of native Uriyá landholders it is much less.

The Amount of Protection to person and property has steadily increased. In 1804 there was but one permanent officer, and there were only three courts of any sort for the whole District. In 1850 there were eight courts, and one covenanted officer; in 1860, nine courts, and two covenanted officers; and in 1870-71, eleven courts, with three covenanted officers. The latter generally consist of (1) a Magistrate and Collector at Balasor; (2) a Joint or Assistant-Magistrate and Deputy-Collector at Balasor; and (3) an Assistant-Magistrate and Deputy-Collector in charge of the Bhadrakh Subdivision.

Police Statistics.—In 1824 the total cost of the District police force, both officers and men, amounted to £444; in 1840, to £1584; and in 1860, to £1442. The present police force consists of three bodies,—the regular or District police, the municipal police, and the village watch or rural constabulary.

The Regular Police Force consisted at the end of 1872 of the following strength:—1 European officer or District Superintendent, maintained at a salary of Rs. 500 a month, or £600 a year; 4 subordinate officers on a salary of upwards of Rs. 100 a month, or £120 a year, and 101 officers on less than Rs. 100 a month, or £120 a year, maintained at a total cost of Rs. 2915 a month, or £3498 a year, equal to an average pay of Rs. 27. 12. 2 a month, or £33, 6s. 3d. a year, for each subordinate officer; and 434 foot police constables, and 26 water constables, maintained at a total cost of Rs. 3088. 5. 4 a month, or £3706 a year, equal to an average pay of Rs. 6. 11. 5 a month, or £8, 1s. 2d. a year, for each man. The other expenses connected with the regular police are,—an average of Rs. 90. 13. 4 a month, or £109 a year, as travelling

allowances for the District Superintendent; Rs. 207 a month, or £248, 8s. od. a year, as pay and travelling allowances for his office establishment; and an average of Rs. 598. 5. 4 a month, or £718 a year, for contingencies and all other expenses. The total cost of the regular police force in 1872, in Balasor District, amounted to Rs. 7399. 8. 0 a month, or a total for the year of £8879, 8s. od.; total strength of the force, 566 men of all ranks. The area of Balasor District is 2066 square miles; and the total population in 1872, as returned in the Census Report, was 770,232 souls. According to these figures, there is one regular policeman to every 3·65 square miles of the District area, and one to every 1361 of the District population. The annual cost of maintenance of the force is equal to Rs. 42. 15. 7 or £4, 5s. 11d. per square mile of the District area; and to 1¾ *ánnás* or nearly 3d. per head of the total population.

THE MUNICIPAL POLICE is a force which consisted at the end of 1872 of 2 native officers and 30 men, maintained at a total cost of Rs. 187. 2. 8 a month, or £224, 12s. od. a year, defrayed by means of rates levied upon the householders and shopkeepers carrying on business within municipal limits.

THE VILLAGE WATCH OR RURAL POLICE is divided into two bodies, *páiks* and *chaukídárs*, both together numbering 2320 men in 1872, maintained either by money wages, or by rent-free service lands, at an estimated total annual cost, including both sources, of £2745. Compared with the area and population, there is one village watchman to every 0·89 of a square mile of the area, and one to every 332 of the population; maintained at an estimated cost of Rs. 13. 4. 7 or £1, 6s. 7d. per square mile of area, or of 7 *pies* or ⅞d. per head of the population. Each village watchman has charge, on an average, of 37 houses, and receives an estimated average pay in money or lands of 15⅓ *ánnás* a month, or £1, 3s. od. a year.

Including, therefore, the Regular District police, the municipal police, and the village watch, the machinery for protecting person and property in Balasor District consisted at the end of 1872 of a total force of 2918 officers and men, equal to one man to every ·70 of a square mile of the District area, or one man to every 264 persons as compared with the population. The estimated aggregate cost of maintaining this force, both from Government and private sources, and including the value of the service lands held rent free, amounted in 1872 to a sum of Rs. 9874. 2. 8 a month, or £11,849 a year, equal

to a charge of Rs. 57· 5· 7 or £5, 14s. 8½d. per square mile of the District area, or 2 *ánnás* 4 *pies* or 3½d. per head of the population.

CRIMINAL STATISTICS. — During the year 1872, 975 'cognisable' cases were reported to the police, of which 179 were discovered to be false, and 46 were not inquired into. Convictions were obtained in 397 cases, or 52·93 per cent. of the 'true' cases; in which 1103 persons were tried, of whom 617, or 55·94 per cent., were convicted. Of 'non-cognisable' cases, 834 were instituted, in which process issued against 1153 persons. The number of persons who actually appeared before the Court was 961, of whom 288, or 30 per cent., were discharged after appearance; 370, or 38 per cent., were acquitted by the Magistrate or Sessions Court; 2 died; and 274, or 29 per cent., were convicted, leaving 27 under trial at the close of the year.

The following details of the number of cases, convictions, etc., for different crimes and offences in 1872, are taken from the Report of the Inspector-General of Police for that year. The cognisable cases were as follows:—Class I. Offences against the State, public tranquillity and justice—Offences relating to coin, stamps, and Government notes, 2 cases reported, 1 person tried, not convicted; other offences against public justice, 3 cases, 3 persons tried and 2 convicted; rioting and unlawful assembly, 8 cases, 56 persons tried and 35 convicted. Class II. Serious offences against the person—Murder, 3 cases, 6 persons tried and all convicted; culpable homicide, 2 cases, 1 person tried, not convicted; rape, 6 cases, 5 persons tried, none convicted; exposure of infants or concealment of birth, 4 cases, 2 persons tried and convicted; attempt at or abetment of suicide, 4 cases, 4 persons tried and all convicted; grievous hurt, 2 cases, 2 persons tried and convicted; administering stupefying drugs to cause hurt, 2 cases, 4 persons tried and 1 convicted; causing hurt for purpose of extorting property or confession, 2 cases, 4 persons tried and convicted; hurt by dangerous weapons, 8 cases, 10 persons tried and 7 convicted; kidnapping or abduction, 4 cases, 1 person tried, not convicted; using criminal force to public servant or woman, or in attempt to commit theft or to wrongfully confine, 8 cases, 9 persons tried, 4 convicted. Class III. Serious offences against person and property, or against property only—*Dákáiti* or gang-robbery, 5 cases, 27 persons tried and 12 convicted; ordinary robbery, 1 case, but no arrest; serious mischief and cognate offences, 6 cases, 4 persons tried, none convicted; habitually receiving stolen

property, 6 cases, 13 persons tried and 8 convicted. Class IV. Minor offences against the person—Wrongful restraint and confinement, 35 cases, 45 persons tried and 5 convicted; causing hurt or endangering life by rash act, 1 case, 1 person tried and convicted. Class V. Minor offences against property—Lurking house trespass or housebreaking, 15 cases, 3 persons tried and 2 convicted; theft of cattle, 33 cases, 36 persons tried and 11 convicted; ordinary theft, 354 cases, 290 persons tried and 118 convicted; criminal breach of trust, 58 cases, 51 persons tried and 12 convicted; receiving stolen property, 8 cases, 15 persons tried and 14 convicted; criminal or house trespass, 68 cases, 78 persons tried and 15 convicted. Class VI. Other offences not specified above—Vagrancy and bad character, 25 cases, 24 persons tried and 22 convicted; offences against the excise laws, 22 cases, 25 persons tried and 18 convicted; offences against the salt and custom laws, 185 cases, 307 persons tried and 267 convicted; public and local nuisances, 28 cases, 23 persons tried and 19 convicted. The total number of persons actually tried in 'cognisable" cases was 1103, of whom 617, or 55·94 per cent., were convicted either by the Magistrate or at the Sessions Court.

The number of cases instituted and of persons tried and convicted in 'non-cognisable' cases during 1872 is returned as follows:—Class I. Offences against the State, public tranquillity and justice—Offences against public justice, 16 cases, 17 persons tried and 10 convicted; offences by public servants, 7 cases, 5 persons tried and 1 convicted; false evidence, false complaints and claims, 56 cases, 110 persons tried and 61 convicted; forgery or fraudulently using forged documents, 10 cases, 10 persons tried and 1 convicted; offences relating to weighing and measuring, 6 cases, 10 persons tried and 9 convicted; rioting, unlawful assembly, and affray, 3 cases, 4 persons tried and all convicted. Class II. Serious offences against the person—Causing miscarriage, 2 cases, 4 persons tried, none convicted. Class III. Serious offences against property—Extortion, 10 cases, 8 persons tried, none convicted. Class IV. Minor offences against the person—Causing hurt, 61 cases, 30 persons tried and 12 convicted; criminal force, 361 cases, 237 persons tried and 80 convicted. Class V. Minor offences against property—Cheating, 31 cases, 24 persons tried and 8 convicted; criminal misappropriation of property, 15 cases, 12 persons tried and 9 convicted; criminal breach of trust by public servants, bankers, etc., 8 cases, 4 persons

tried and 1 convicted; simple mischief, 97 cases, 64 persons tried and 16 convicted. Class VI. Other offences not specified above—Offences relating to marriage, 3 cases, 2 persons tried and 1 convicted; defamation, 17 cases, 7 persons tried and 1 convicted intimidation and insult, 23 cases, 15 persons tried and 8 convicted public and local nuisances, 5 cases, 5 persons tried and all convicted; offences under chapters xviii., xx., xxi., and xxii. of the Criminal Procedure Code, 34 cases, 36 persons tried and 22 convicted; offences against the Post Office Act, 3 cases, 26 persons tried and 15 convicted; offences against the Ferry Regulations, 1 case, 1 person tried and convicted; offences against the Pound Act, 63 cases, 41 persons tried and 9 convicted; offences under the Emigration Act, 1 case, 1 person tried, not convicted. The total number of persons actually tried in 'non-cognisable' cases was 673, of whom 274, or 41 per cent., were convicted.

Excluding 179 cases, which were declared to be false by the Magistrate, and 46 cases which the police declined to take up, the total number of 'cognisable' and 'non-cognisable' cases investigated in Balasor District in 1872 was 1584, in which 1776 persons were actually tried, and 891 convicted either by the Magistrate or the Sessions Judge; proportion of persons convicted to persons tried, 50 per cent., or one person convicted of an offence of some kind or other to every 864 of the District population.

Criminal Classes.—Balasor District is reported to be singularly free from serious crime. The great majority of the prisoners belong to the labouring and lowest agricultural classes, with a proportion, however, of the writer caste, and a much larger number of Muhammadans than is found in Puri or Cuttack. At the same time, crime is much less frequent than in the more civilised parts of Bengal; nor is there any class of crime characteristic of the District. Drugging with intent to rob is sometimes practised on the great highway to Jagannáth, and Bráhmans have peculiar facilities as cooks for committing this offence. But it is a crime of the Trunk Road rather than of Balasor District.

Jail Statistics.—There are two jails in Balasor, namely, the District jail at the Civil Station, and a Subdivisional lock-up at Bhadrakh. The following figures, showing the jail population of Balasor District for the years 1857-58, 1860-61, 1870, and 1872, are compiled from a return specially prepared for me by the Inspector General of Jails, and from the Jail Report for 1872. As explained

in my Statistical Account of Cuttack District (pp. 209–210), the figures for the first two named years must be regarded with caution, and as only approximately correct, owing to defects in the mode of preparing the returns. In 1870 an improved form of return was introduced, and the figures for that year and for 1872 may be accepted as correct.

In 1857-58, the first year for which materials are available, the daily average number of prisoners in the Balasor jail and lock-up was 84; the total number of civil, criminal, and under-trial prisoners admitted during the year being 299. The discharges were—Transferred, 39; released, 205; escaped, 1; died, 9; executed, 1—total, 255. In 1860-61 the jail returns show a daily average number of 111 prisoners; the total admissions of prisoners of all classes being 437. The discharges were as follow:—Transferred, 86; released, 344; escaped, 1; died, 16; executed, 1—total, 448. In 1870 the daily average jail population was 147; the total number of prisoners admitted during the year being 618. The discharges were—Transferred, 7; released, 585; died, 5—total, 597. In 1872 the daily average number of prisoners was as follows:—Civil, 1·58; under-trial, 16·95; labouring convicts, 133·41; and non-labouring convicts, 10·59—total, 162·53, of whom 8·49 were females. The total admissions during the year were 511; the discharges amounted to 440. The average daily jail population in 1872 was equal to one male prisoner to every 2461 of the male population; and one female prisoner to every 46,072 of the female population.

In 1857-58 the proportion of prisoners admitted into hospital amounted to 177·44 per cent., and the deaths to 10·71 per cent., of the average jail population; in 1860-61 the admissions into hospital amounted to 190·09 per cent., and the deaths to 14·41 per cent., of the average prison population; in 1870 the admissions into hospital amounted to 95·91 per cent., and the deaths to 3·40 per cent., of the average number of prisoners. The year 1872 was the healthiest on record in the Balasor jail. In that year the deaths only amounted to 1·23 per cent. of the average jail population, being 4·11 per cent. below the average death-rate in Bengal jails generally.

The average cost of maintenance per prisoner in the Balasor jail and lock-up, including rations, establishment, hospital charges, contingencies, and all other expenses except the prison police guard, is returned as follows:—In 1857-58 it amounted to Rs. 52. 4. 4 or £5, 4s. 6½d. per head; in 1860, to Rs. 47. 13. 4 or £4, 15s. 8d.;

and in 1870, to Rs. 45. 0. 9 or £4, 10s. 1⅛d. per head. The cost of the jail police guard in 1870 amounted to an average of Rs. 13. 12. 6 or £1, 7s. 6¾d. per head, making a gross average charge to Government of Rs. 58. 13. 3 or £5, 17s. 8d. per prisoner. The Inspector-General of Jails, in his Report for 1872, returns the total cost of the Balasor jail and lock-up, including police guard, at £880, 9s. 5d. Deducting the cost of the prison guard, which is included in the general police budget of the District, the cost of the jail in 1872 amounted to £721, 1s. 6d.

Prison manufactures have been carried on in Balasor jail for several years past. In 1857-58 the receipts arising from jail manufactures, together with the value of stock remaining on hand at the end of the year, amounted to £27, 7s. 9¼d., and the charges to £18, 6s. 6d., leaving an excess of receipts over charges of £9, 1s. 3¼d.; average earning per manufacturing prisoner, Rs. 6. 1. 3 or 12s. 2d. In 1860-61 the receipts amounted to £229, 9s. 8d., and the charges to £119, 19s. 7¼d., leaving a profit of £109, 10s. 0¾d.; average earning by each manufacturing prisoner, Rs. 11. 9. 2 or £1, 3s. 1¾d. In 1870 the total credits arising from jail manufactures amounted to £446, 17s. 7¾d., and the total debits to £350, 12s. 6¾d., leaving a profit of £96, 5s. 1d.; average earning per manufacturing prisoner, Rs. 16. 5. 0 or £1, 12s. 7½d. In 1872 the credits arising from prison industries amounted to £363, 6s. 2½d., and the debits to £368, 18s. 6¼d., leaving a profit of £4, 12s. 3¾d. Excluding prisoners employed on jail duties, as servants, warders, etc., and the sick and aged, the average daily number of prisoners employed in manufactures in Balasor jail in 1872 amounted to 52·84, divided as follows:—Gunny-weaving, 10·00; gardening, 7·62; cloth manufacturing, 10·71; brick making, etc., 1·34; bamboo work, ·01; oil making, 3·57; blanket making, ·04; paper making, 19·55—total, 52·84. The Inspector-General of Jails writes as follows regarding the results of the prisoners' labour in 1872:—'The manufactures, though not very flourishing, owing to the want of long-term men, are carefully looked after, and some profit is made. The system of penal labour for short-term men is fully understood and carried out.'

Educational Statistics.—Until within the last few years but very little progress was made in education. The following comparative table (pp. 353 and 354), compiled from the Annual Reports of the Director of Public Instruction, exhibits the number of Government

[*Sentence continued on page 355.*

Return of Government and Aided Schools in Balasor District for the Years 1856-57, 1860-61, and 1870-71.

Classification of Schools.	Number of Schools.			Number of Pupils.											
				Hindus.			Muhammadans			Others			Total.		
	1856-57	1860-61	1870-71	1856-57	1860-61	1870-71	1856-57	1860-61	1870-71	1856-57	1860-61	1870-71	1856-57	1860-61	1870-71
Government English School,	1	1	1	72	65	117	1	8	9	7	1	3	80	74	129
Government Vernacular Schools,	1	2	3	15	44	120	4	13	3	...	.	...	19	57	123
Aided Vernacular Schools,	.	5	17	.	108	563	...	19	25		13	92		140	680
Aided English Schools,	.		2		...	127	...	...	24						151
Aided Girls' Schools,	...	.	4	...	–	75	...	..	...		...	64	...	.	139
Sántipur Missionary School,		.	1		.		.	..	...	..	...	30	...	...	30
Total,	2	8	28	87	217	1002	5	40	61	7	14	189	99	271	1252

RETURN OF GOVERNMENT AND AIDED SCHOOLS IN BALASOR DISTRICT—*continued.*

CLASSIFICATION OF SCHOOLS.	RECEIPTS						EXPENDITURE.		
	From Government.			Fees, Subscriptions, Donations, etc.					
	1856-57.	1860-61.	1870-71.	1856-57.	1860-61.	1870-71.	1856-57.	1860-61.	1870-71.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Government English School,	300 1 10	239 16 9	231 5 10	48 16 0	91 6 3	114 18 8	353 15 10	331 3 0	346 4 6
Government Vernacular Schools,	19 8 0	30 14 7	67 5 0	1 17 0	4 2 0	17 6 3	21 5 0	34 16 7	84 11 3
Aided Vernacular Schools,	...	71 0 0	228 11 0		94 8 11	208 18 2	.	148 17 9	433 19 4
Aided English Schools,	.	...	86 8 0	...		220 0 10	.	...	221 8 2
Aided Girls' Schools,	...	..	100 4 0	.	..	234 3 0	.	...	334 2 0
Sántipur Missionary School,	..	..	60 0 0	.	.	60 0 0	..	...	120 0 0
Total,	319 9 10	341 11 4	773 13 10	50 13 0	189 17 2	855 6 11	375 0 10	514 17 4	1540 5 3

[*Sentence continued from page* 352.]
and aided schools in Balasor District in the years 1856-57, 1860-61, and 1870-71, together with the number, religion, etc. of the pupils attending them, cost of education to Government, and that defrayed by fees or from private sources. During the fifteen years covered by the table, the number of Government and aided schools increased from 2 in 1856-57 to 28 in 1870-71; and the number of pupils from 99 to 1252 within the same period. The Government grant in aid rose from £319, 9s. 10d. in 1856-57 to £773, 13s. 10d. in 1870-71; while the amount realized by fees, or from private contributions, increased from £50, 13s. 0d. in 1856-57 to £855, 6s. 11d. No private schools are included in the table.

Sir George Campbell's Scheme of Educational Reform, by the extension of the grant-in-aid rules to hitherto unaided schools, came into operation on the 30th September 1872. Numerous masters of indigenous village schools applied to be admitted to the benefits of the grant; and the result was, that within six months from the time the reform was introduced, the number of schools brought under the inspection of the Educational Department had increased to 189, attended by 4446 pupils, at the close of the educational year 1872-73. The Government grant for education in 1872-73 amounted to £921, 6s. 0d.; the total expenditure to £1840, 16s. 0d. By 31st March 1875 the number of schools had further increased to 217, and the pupils to 5972. These figures give one school to every 9·5 square miles of the District area, and 7·7 pupils to every thousand of the population. The following table (p. 356), compiled from the Educational Report for 1873, exhibits the Educational Statistics of Balasor District for that year.

The following paragraphs, regarding the various classes of schools in Balasor District, are quoted from the Report of the Educational Department for 1872-73:—

'GOVERNMENT HIGH SCHOOL.—The attendance was 118 in 1871-72 against 103 in 1872-73; the expenditure was only £333, 8s. 0d. in 1871-72, whilst it has been £367, 4s. 0d. in 1872-73. There was a great falling off in attendance in the last four months of 1872, partly on account of the dengue fever, and partly on account of the cheap tuition obtainable at the Catholic missionary institution. The average attendance was only 74; 60 per cent. of the pupils were relatives of Government servants, 35 per cent. traders. At

[*Sentence continued on page* 357.

EDUCATIONAL STATISTICS OF BALASOR DISTRICT FOR 1872-73.

CLASSIFICATION OF SCHOOLS	Number of Schools.	Number of Pupils.	RECEIPTS.				EXPENDITURE.
			Government Grant.	School Fees.	Subscriptions, etc.	Total Receipts.	
			£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Government High School,	1	103	251 12 0	115 12 0	..	367 4 0	367 4 0
Aided Middle-Class English Schools,	2	94	86 8 0	28 0 0	152 4 0	266 12 0	313 14 0
Government Middle-Class Vernacular Schools,	3	113	75 0 0	10 14 0	18 0 0	103 14 0	101 16 0
Aided Middle-Class Vernacular Schools,	6	278	118 6 0	67 10 0	87 12 0	273 8 0	272 14 0
Aided Primary Schools,	172	3474	226 16 0	27 18 0	58 4 0	312 18 0	312 16 0
Normal School,	1	58	63 0 0	...	63 0 0	126 0 0	126 0 0
Aided Girls' Schools,	3	117	77 8 0	23 10 0	177 6 0	278 4 0	278 4 0
Balasor *Zanánd* Association,	1	109	22 16 0	5 0 0	40 12 0	68 8 0	68 8 0
Total,	189	4346	921 6 0	278 4 0	596 18 0	1796 8 0	1840 16 0

[*Sentence continued from page* 355.]
the end of the year, of the 103 pupils on the rolls, 98 were Hindus, 4 Muhammadans, and 1 Christian. The cost of the tuition of each boy was Rs. 38. 1*p*. 4 or £3, 17s. 3½d., of which the State paid Rs. 26. 7. 9 or £2, 12s. 11⅝d. Five boys appeared at the University entrance examination; three passed; all obtained scholarships.

'MIDDLE-CLASS ENGLISH SCHOOLS.—These are but two in number, situated at Bhadrakh and Lokhyánáth. The former is reported by the Magistrate to be very flourishing. The school-house has lately been repaired efficiently and well. One pupil only appeared for the minor scholarship examination, and was successful. Eleven Muhammadan boys attend the school; the secretary is a Muhammadan. In the second school, the pupils appear to have made fair progress. Education at these schools costs Rs. 27. 7. 9 or £2, 14s. 11⅝d. for each pupil, of which Government paid Rs. 8. 4. 0 or 16s. 6d. The attendance was 94; their total cost, £313, 12s. 0d.

'VERNACULAR SCHOOLS OF THE MIDDLE CLASS.—Of these there are ten in all, of which six are aided, and three supported by Government; and one is unaided, being entirely supported by the Roman Catholic missionary, Father Sapart.

'The Balasor town Protestant mission school has suffered much by the death of the pastor, and the resignation of the head-master. In the Bánsdihá school, which is supported by the local *zamíndár*, boys and girls are taught together. The manager boards and lodges many of the scholars. The school appears favourably situated and popular. The Dolsáhí school, which is supported from the Nayánand Khás Mahál Fund, is reported to be very popular and flourishing. An *abádhán* has been appointed to assist in the school, and the popularity of this measure has benefited the school. The Soro school is not well attended, which is attributed to the apathy of the people. The other schools did creditably at the vernacular scholarship examination; the average attendance appears good. Out of 391 boys, only 19 are Muhammadans. The cost of tuition was Rs. 9. 10. 0 or 19s. 3d., of which the State paid about Rs. 5 or 10s. The Sántipur Normal School was under the management of the Rev. J. Phillips, of the American Free Baptist Mission. In the report of the Mission for 1872-73, the pupils on the rolls of the school are given as 80, with an average attendance throughout the year of 58; all of them are either Santáls or Uriyás. They

are trained in the Santáli, Uriyá, and Bengali languages; 4 only are Christians. The school was established in 1868. The cost of the school was £126 only. Each pupil cost Rs. 21. 11. 7 or £2, 3s. 5⅜d. of which the State paid half. The missionary speaks rather gloomily of his past labour on behalf of female education. He says: "Of five girls who have passed through the school and obtained certificates, only one continues to teach. Intemperance, poverty, gross superstition, indifference, and even a contempt for learning have still to be encountered in our efforts to promote education." In another place he says: "Thus far Santál girls on leaving school fall back to a level with the mass of Santál women, and appear to make little or no effort to utilize their knowledge."

'MISSION VILLAGE SCHOOLS.—Of these the same gentleman speaks thus:—"Fear of witches prevents children of different villages from attending the same school. We have at present 14 Santál schools, with an aggregate of only 150 pupils; one of these is on the border of Midnapur, amidst a more appreciative people, where the school is highly prized."

'GIRLS' SCHOOLS.—Of these there are four in Balasor; two under missionary bodies, one under native managers, and one under the Zanáná Association. The first two are the Balasor convent girls' school and the Jaleswar female orphanage. The girls of the convent school are mostly Christians. They are said to be in every way superior to the other scholars; they excel in needlework, and are taught English. They pay fees varying from 8 *ánnás* or 1s., to R. 1 or 2s. The number on the roll was 41 at the commencement of the year. The tuition of each girl costs Rs. 58 or £5, 16s. 0d., of which the State pays Rs. 12 or £1, 4s. 0d. The Jaleswar orphanage is managed by Miss Crawford, of the American Free Baptist Mission. This school numbers 43 pupils. There appears to be a kindly feeling between the pupils of this orphanage and their Santáli kindred. The ex-students of the school have established seven or eight village schools, in which girls and boys are taught. The Magistrate speaks very highly of this institution:—"The building is large and clean, the girls are well educated, and trained both in school and out of it. There is no doubt that the moral effect of Miss Crawford's teaching will be felt all over the Province. Several of her girls have been married to Christian orphans from the Balasor orphanage, and have settled in the south of the District. In cleanness, industry, and intelligence, they show a marked contrast

to the native females in the surrounding villages." It is said that the more intelligent native gentlemen are becoming gradually more interested in female education.

'There is also a Hindu girls' school under native management, attended by 33 pupils. The encouragement it meets is small, and there appears to be some difficulty in obtaining good Uriyá school-books. The girls leave the school very young. It is, however, something that a commencement of female education under native management has been made. It seems bad policy, however, to offer free tuition; some fee should be charged, however small. One of the chief drawbacks to female education in Orissa, as elsewhere, is the want of proper accommodation, and the want of sympathy with the movement felt by the whole female community of mature age, who rule the interior of each household with despotic power.'

POSTAL STATISTICS.—The following table, showing the number of letters, newspapers, etc. received at and despatched from the Balasor post office in each of the years 1861-62, 1865-66, and 1870-71, together with the postal receipts and expenditure for the same years, is compiled from a return furnished to me by the Director-General of Post Offices:—

POSTAL STATISTICS OF BALASOR DISTRICT FOR THE YEARS 1861-62, 1865-66, AND 1870-71.

	1861-62.		1865-66.		1870-71	
	Received.	Despatched	Received.	Despatched	Received.[1]	Despatched
Letters,	36,796	30,813	56,945	53,894	57,412	*Materials not received for this column.*
Newspapers,	2,966	201	4,100	371	4,764	
Parcels,	1,169	549	1,043	456	648	
Books,	917	151	608	108	1,440	
Total,	41,848	31,714	62,696	54,829	64,264	
Sale of Postage Stamps,			£207 12 6¾		£255 2 2¼	
Cash Collections,	£116 6 1½		177 10 5½		234 12 4	
Total Receipts,			385 3 0		489 14 6[2]	
Total Expenditure,	731 9 5		711 9 3½		904 16 9	

[1] The figures for this column represent the actuals for only six months, and an estimate for the remaining half of that year.

[2] Exclusive of £39, 2s. 7½d., receipts for sale of stamps for official correspondence. Official or service stamps were first introduced in 1866.

POLITICAL DIVISIONS.—For administrative purposes, Balasor District is divided into the two following Subdivisions:—

THE SADR OR HEADQUARTERS SUBDIVISION contains an area of 1157 square miles, with 2072 villages or townships, and 77,023 houses. Population: Hindus—males 199,891, and females 199,888; total, 399,779, or 94·6 per cent. of the Subdivisional population: proportion of males in total Hindus, 50·0 per cent. Muhammadans—males 5160, and females 5220; total, 10,380, or 2·5 per cent. of the Subdivisional population: proportion of males in total Musalmáns, 50·3 per cent. Buddhists, *nil*. Christians—males 226, and females 284; total, 510, or ·1 per cent. of the Subdivisional population: proportion of males in total Christians, 44·3 per cent. Other denominations not separately classified in the Census—males 6319, and females 5678; total, 11,997, or 2·8 per cent. of the Subdivisional population: proportion of males in total 'others,' 52·7 per cent. Population of all religions—males 211,596, and females 211,070; total, 422,666: proportion of males in total Subdivisional population 50·1 per cent. Average density of population, 365 per square mile; average number of villages or townships per square mile, 1·79; average number of persons per village or township, 204; average number of houses per square mile, 67; average number of persons per house, 5·5. This Subdivision comprises the five police circles (*thánás*) of Balasor, Bastá, Jaleswar, Bálíapál, and Soio. In 1870-71 it contained ·11 magisterial and revenue courts, a regular police force of 426 men, and a rural constabulary or village watch of 1118 men.

THE BHADRAKH SUBDIVISION was constituted in November 1847. In 1872 it contained an area of 909 square miles, 1194 villages or townships, and 61,891 houses. Population: Hindus—males 163,104, and females 175,513; total, 338,617, or 97·4 per cent. of the Subdivisional population: proportion of males in total Hindus, 48·2 per cent. Muhammadans—males 4168, and females 4330; total, 8498, or 2·5 per cent. of the Subdivisional population: proportion of males in total Musalmáns, 49·0 per cent. Buddhist, 1. Christians—males 15, and females 5; total, 20. Other denominations—males 193, and females 237; total, 430, or ·1 per cent. of the Subdivisional population: proportion of males in total 'others,' 44·9 per cent. Population of all religions—males 167,481, and females 180,085; total, 347,566: proportion of males in total Subdivisional population, 48·2 per cent. Average density of popula-

tion, 382 per square mile; average number of villages or townships per square mile, 1·31; average number of persons per village or township, 291; average number of houses per square mile, 68; average number of persons per house, 5·6. The Subdivision comprises the four police circles (*thánás*) of Bhadrakh, Básudebpur, Dhámnagar, and Mutoh. In 1870-71 it contained 2 magisterial and revenue courts, a regular police force of 146 men, and a rural constabulary or village watch of 1202 men.

FISCAL DIVISIONS.—The District of Balasor is divided into seventy Fiscal Divisions or *pargaṅás*, which, as a rule, are much smaller than those of Puri or Cuttack. Many of them barely exceed five square miles, several of them are a little over three, and one of them is only 1·04 square miles. It must, therefore, be understood that the term 'Fiscal Division' (*pargaṅá*) has a much more limited meaning in Balasor than in other Districts. The following is a list of the *pargaṅás* of Balasor, showing their total area, with the proportion of land under cultivation, capable of cultivation, and uncultivable; the land revenue, the names of the two chief towns or villages, etc. These details have been very carefully compiled; but the materials on which they are based were collected more than thirty years ago, and they must be received as approximations to the truth, rather than as tested statistics. There is also a slight element of error in each, as I do not give fractions of acres:—

(1) ANKURA: area, 133·85 square miles, or 85,670 acres; 33,871 acres cultivated; 5684 cultivable; 46,112 uncultivable; 37 estates; land revenue, £2616; chief villages, Básudebpur and Karanjáriyá.

(2) ADA-RUPIYA: area, 18·03 square miles, or 11,539 acres; 6014 acres cultivated; 1190 cultivable; 4334 uncultivable; 5 estates; land revenue, £273; chief villages, Madhusúdanpur and Náráyanpur.

(3) ARMALA: area, 10·54 square miles, or 6743 acres; 4429 acres cultivated; 178 cultivable; 2136 uncultivable; 17 estates; land revenue, £206; chief villages, Armalá and Somnáthpur.

(4) ARSO: area returned differently in separate returns; 3 estates; land revenue, £47; chief villages, Jaldá and Sárgáon.

(5) BALKHAND: area, 65·34 square miles, or 41,820 acres; 19,462 acres cultivated; 2990 cultivable; 19,267 uncultivable; 71 estates; land revenue, £1189; chief villages, Purúshottamapur and Bari.

(6) BANAHAR: area, 11·49 square miles, or 7353 acres; 4775 acres cultivated; 107 cultivable; 2470 uncultivable; land revenue not given; chief villages, Debpur and Ráṅgápatí.

(7) BANCHAS: area, 30·54 square miles, or 19,543 acres; 12,473 acres cultivated; 466 cultivable; 6603 uncultivable (the Board of Revenue, however, recently returned the area at 146,843 acres, or 2944 square miles); 31 estates; land revenue, £4574; chief villages, Báragáon and Jagannáthpur.

(8) BASTA: area, 13·29 square miles, or 8503 acres; 4864 acres cultivated; 327 cultivable; 3412 uncultivable; 14 estates; land revenue, £269; chief villages, Bastá and Báhárdá.

(9) BAUTARA: recently transferred from Cuttack; 5·60 square miles, or 3586 acres; 2716 acres cultivated; 63 cultivable; 806 uncultivable; 28 estates; land revenue, £169; chief villages, Kásbá and Gobindpur.

(10) BHELORACHAUR: area, 40·00 square miles, or 25,584 acres; 28 estates; land revenue, £553; chief villages, Kholrá and Jhár Pipal.

(11) BHERA: area, 53·59 square miles, or 34,301 acres; 22,170 acres cultivated; 2364 cultivable; 9767 uncultivable; 55 estates; land revenue, £1674; chief villages, Bindhá and Pánpur.

(12) BHOGRAI: area, 48·73 square miles, or 31,189 acres; 8525 acres cultivated; 2230 cultivable; 20,433 uncultivable; 9 estates; land revenue, £1278; chief villages, Deulá and Bártaná.

(13) BISALKHAND: area, ·09 of a square mile, or 54 acres; 1 estate; land revenue, £2; chief villages, Korái and Asmalá.

(14) BAYANG: area, 88·05 square miles, or 56,352 acres; 69 estates; land revenue, £2297; chief villages, Kothár and Súrjyápur.

(15) CHHANUYA: area, 10·24 square miles, or 6554 acres; 488 acres cultivated; 3451 cultivable; 2614 uncultivable; 15 estates; land revenue, £78; chief villages, Níldá and Chhená.

(16) DARARACHAUR: area, 21·77 square miles, or 13,934 acres; 9531 acres cultivated; 369 cultivable; 4033 uncultivable; 7 estates; land revenue, £374, 10s. od.

(17) DASMALANG: area, 53·54 square miles, or 34,268 acres; 6474 cultivated; 802 cultivable; 26,992 uncultivable; 11 estates; land revenue, £309; chief villages, Ransáhi and Hirágáon.

(18) DHAMNAGAR: area, 58·84 square miles, or 37,660 acres, 21,983 acres cultivated; 2615 cultivable; 13,061 uncultivable; 80 estates; land revenue, £1650; chief villages, Churákuti and Syámpur.

(19) FATHABAD: area, 61·91, or 39,697 acres; 3 estates; land revenue, £178; other details not available.

(20) GANESWAR: area, 12·80 square miles, or 8191 acres; 3910 acres cultivated; 359 cultivable; 3921 uncultivable; chief villages, Chálunigán and Páikraná.

(21) GARHPADA: area, 16·89 square miles, or 10,815 acres; 5658 acres cultivated; 844 cultivable; 4313 uncultivable; 5 estates; land revenue, £149; chief villages, Uriyásásan and Bhatkhandi.

(22) JAJPUR: recently transferred to Cuttack; details not given.

(23) JALESWAR: area, 36·34 square miles, or 23,256 acres; 64 estates: land revenue, £1014; chief villages, Aruyá and Santiyá.

(24) JAYAPUR: area, 21·6 square miles, or 13,481 acres; 8924 acres cultivated; 150 cultivable; 4406 uncultivable; 31 estates; land revenue, £964; chief villages, Panpaná and Soti.

(25) KAEDA: area, 12·11 square miles, or 7754 acres; 4277 acres cultivated; 215 cultivable; 3261 uncultivable; chief villages, Anantapur and Káedá.

(26) KAMARDACHAUR: area, 44·58 square miles, or 28,536 acres; 19,039 acres cultivated; 1054 cultivable; 8442 uncultivable; 49 estates; land revenue, £1603; chief villages, Kasbá-Kamardá and Patiná.

(27) KATSAHI: area, 13·81 square miles, or 8841 acres; 4447 acres cultivated; 333 cultivable; 4060 uncultivable; 3 estates; land revenue, £317; chief villages, Tapandíha and Churmárá.

(28) KAYAMA: recently transferred from Cuttack; area, 54·38 square miles, or 34,799 acres; 135 estates; land revenue, £1637.

(29) KHEJURI: area, 18·90 square miles, or 12,097 acres; 7555 acres cultivated; 480 cultivable; 4061 uncultivable; 11 estates; land revenue, £497; chief villages, Barúnsinh and Khantápárá.

(30) KILA-AMBO: area, 5·67 square miles, or 3630 acres; 1641 acres cultivated; 187 cultivable; 1801 uncultivable; chief villages, Ambo and Tarbhá.

(31) KILA AMBOHATA: area, 36·21 square miles, or 23,175 acres; 8924 acres cultivated; 506 cultivable; 13,744 uncultivable; 6 estates; land revenue, £320; chief villages, Kopári and Haripur.

(32) KILA MANGALPUR: area, 10·59 square miles, or 6779 acres, 3309 acres cultivated; 120 cultivable; 3349 uncultivable; 1 estate; land revenue, £103; chief villages, Gopínathpur and Mangalpur.

(33) KILA PATNA: area, 7·98 square miles, or 5107 acres; 2321 acres cultivated; 134 cultivable; 2651 uncultivable; 1 estate land revenue, £48; chief villages, Balanga and Chhatrá.

(34) KILA TALMUNDA: area, 19·70 square miles, or 12,610 acres; 7356 acres cultivated; 214 acres cultivable; 5040 uncultivable; chief villages, Mahamuhán and Korái.

(35) KISMAT ANKURA: area, 2·34 square miles, or 1495 acres; 904 acres cultivated; 16 cultivable; 575 uncultivable; details of estates and land revenue not given; chief villages, Gur and Suyán.

(36) KISMAT KATSAI: area, 5·51 square miles, or 3530 acres; 1814 acres cultivated; 142 cultivable; 1572 uncultivable; 18 estates; land revenue, £248; chief villages, Kasbá-Kumári and Báliyápál.

(37) KISMAT NAPO: area, 1·04 square miles; 1 estate; land revenue, £68.

(38) KODINDA: recently transferred from Cuttack; area, 36·84 square miles, or 23,580 acres; 13,272 acres cultivated; 674 cultivable; 9634 uncultivable; 84 estates; land revenue, £1374; chief villages, Rájhánsa and Mahurá.

(39) KUNARDACHAUR: area, 22·89 square miles, or 14,653 acres; 8358 acres cultivated; 450 cultivable; 5817 uncultivable; 6 estates; land revenue, £325; chief villages, Madhupur and Jágái.

(40) KUNDI: area, 12·51 square miles, or 8009 acres; 3 estates; land revenue, £81; chief villages, Kundí and Gandardá.

(41) KURAI: area, 9·13 square miles, or 5841 acres; 3607 acres cultivated; 85 cultivable; 2149 uncultivable; 2 estates; land revenue, £385; chief villages, Kurái and Bángariyá.

(42) LAKRAJIT: area, 8·35 square miles, or 5347 acres; 3085 acres cultivated; 138 cultivable; 2123 uncultivable; chief villages, Golangá and Gobindapur.

(43) MANJURI; area, 11·33 square miles, or 7249 acres; other details wanting.

(44) MATKADNAGAR: recently transferred from Cuttack; area, 31·17 square miles, or 19,950 acres; 13,852 acres cultivated; 1038 cultivable; 5060 uncultivable; 87 estates; land revenue, £1602; chief villages, Mahangá and Kaliántí.

(45) MATKADABAD: recently transferred from Cuttack; area, 16·42 square miles, or 10,494 acres; 6004 acres cultivated; 14 acres cultivable; 4478 uncultivable; 78 estates; land revenue, £442; chief villages, Masudpur and Mugdihi.

(46) MUKHRA: area, 13·20 square miles, or 8445 acres; 4309 acres cultivated; 533 cultivable; 3603 uncultivable; 14 estates; land revenue, £287; chief villages, Gobindapur and Nuygpári.

(47) MULGAON: area, 12·50 square miles, or 7998 acres; 4764

acres cultivated; 531 cultivable; 2703 uncultivated; 9 estates; land revenue, £280; chief villages, Dhárá and Gurdá.

(48) MULDACHAUR: area, 6·42 square miles, or 4112 acres; 2811 acres cultivated; 87 cultivable; 1214 uncultivable; 3 estates; land revenue, £101; chief villages, Jámálpur and Kundíha.

(49) NANGALESWAR: area, 11·72 square miles, or 9425 acres; 7321 acres cultivated; 162 cultivable, 1942 uncultivable; 11 estates; land revenue, £316; chief villages, Nángaleswar and Pátra.

(50) NAPOCHOR: area, 35·31 square miles, or 22,599 acres; 27 estates; land revenue, £1102.

(51) NUNKHAND: area, 30·66 square miles, or 19,628 acres; 11,062 acres cultivated; 403 cultivable; 8163 uncultivable; 20 estates; land revenue, £508; chief villages, Nayápur and Sásan.

(52) PANCHMALANG: area, 8·62 square miles, or 5520 acres; 933 acres cultivated; 67 cultivable; 4519 uncultivable; chief villages, Sáhapur and Khárá.

(53) PHULWAR; area, 3·83 square miles, or 2452 acres; 10 estates; land revenue, £112; chief villages, Chásákhand and Kálípur.

(54) RADIYA-ORGARA; area, 91·08 square miles, or 58,292 acres; 30,598 acres cultivated; 4185 cultivable; 23,509 uncultivable; 42 estates; land revenue, £1654; chief villages, Bhadrakh and Bálo.

(55) RAUTARA; area, 13·21 square miles, or 8455 acres; 1706 acres cultivated; 2740 cultivable; 4009 uncultivable; 17 estates; land revenue, £166; chief villages, Sárgáon and Sinthiá.

(56) REMUNA; area, 20·12 square miles, or 12,882 acres; 6629 acres cultivated; 534 cultivable; 5718 uncultivable; 10 estates; land revenue, £525; chief villages, Rudrapur and Athántrá.

(57) SHAHBANDAR; area, 10·97 square miles, or 7024 acres; 2581 acres cultivated; 628 cultivable; 3814 uncultivable; 7 estates; land revenue, £449; chief villages, Annabiratti and Bishnupur.

(58) SHAHJAHANABAD; area, 5·13 square miles, or 3289 acres; 2079 acres cultivated; 94 cultivable; 1115 uncultivable; chief villages, Sháhjahánábád and Sálanpur.

(59) SAHIBNAGAR; recently transferred from Cuttack; area, 8·40 square miles, or 5373 acres; 4226 acres cultivated; 229 cultivable; 918 uncultivable; 30 estates; land revenue, £328; chief villages, Hargobindpur and Champábandh.

(60) SARATHACHAUR; area, 4·08 square miles, or 2612 acres;

1665 acres cultivated; 87 cultivable; 860 uncultivable; 1 estate. land revenue, £61; chief villages, Gotigariá and Chhatrá.

(61) SARHAR; area, 27·72 square miles, or 17,742 acres; 9632 acres cultivated; 394 cultivable; 7716 uncultivable; chief villages, Machhadá and Sáoriyá.

(62) SATMALANG; area, 78·73 square miles, or 50,389 acres; 7493 acres cultivated; 3958 cultivable; 38,938 uncultivable; 8 estates; land revenue, £425; chief villages, Jámkundá and Ratái.

(63) SEHARI; area, 3·15 square miles, or 2018 acres; 1 estate land revenue, £87; chief villages, Bishnupur and Sehári.

(64) SENADT; area, 108·39 square miles, or 69,368 acres; 11 estates; land revenue, £4683; chief villages, Dolsái and Ordá.

(65) SUNGARA; recently transferred from Cuttack; area, 41·87 square miles, or 26,798 acres; 19,164 acres cultivated; 1175 cultivable; 6459 uncultivable; 87 estates; land revenue, £2415; chief villages, Sálípur and Lachmabar.

(66) SORO; area, 66·87 square miles, or 42,803 acres; 25,009 acres cultivated; 1723 cultivable; 16,070 uncultivable; 121 estates; land revenue, £2940; chief villages, Námi and Bárhát.

(67) SUNHAT; area, 30·60 square miles, or 19,587 acres; 8826 acres cultivated; 1315 cultivable; 9446 uncultivable; 91 estates; land revenue, £877; chief towns, Balasor and Dámodarpur.

(68) TALSABANGA; area, 24·28 square miles, or 15,538 acres. 16 estates; land revenue, £600; chief villages, Urangi and Padábargán.

(69) TAPPA-MALINCHA; area, 13·86 square miles, or 8873 acres; 5388 acres cultivated; 160 cultivable; 3324 uncultivable; chief villages, Málincha and Goliyá.

(70) TAPPA-PURSANDA; area, 55·17 square miles, or 35,312 acres; 20,395 acres cultivated; 1213 cultivable; 13,703 uncultivable; land revenue, £600; chief villages, Pursanda and Bantá.

MEDICAL ASPECT: CLIMATE.—The hot season, which lasts from March to the middle of June, is tempered by a cool sea-breeze from the south-west. From the middle of June to the end of September is the rainy season, when the weather is close and muggy; from October to February is the cold season, with a north-easterly wind, and cool mornings and evenings. The average monthly temperature, for a period extending over five years, is thus returned to me by the Medical Officer:—January, 85°; February, 89°; March, 93°; April, 96°; May, 98°; June, 92°; July, 88°; August, 88°; September.

73°; October, 74°; November, 73°; December, 78°. The average annual rainfall in Balasor District for fifteen years, prior to 1873, is returned at 67·30 inches. In 1873 the rainfall was deficient, being only 48·35 inches, or 28 per cent. below the average. At Bhadrakh, in 1873, the rainfall is returned at only 35·66 inches. Although the total rainfall was deficient, it was spread over the whole year, and seasonable autumn showers prevented any prejudicial effect upon the crops.

ENDEMICS.—Elephantiasis Arabum attacks about twenty-five per cent. of the population, and is always present in from fifteen to twenty per cent. Specifically, it is the Bucnemia tropica, a local hypertrophy of the cellular structure, attacking the whole body, but more particularly the depending parts and lower extremities. The Civil Surgeon reports that the disease is neither hereditary nor contagious, but, when once fairly established, generally lasts through life. No statistics exist to show in what proportion it attacks the two sexes, or different ages. But the Civil Surgeon believes that Dr. Fox's general statistics hold good in Balasor, namely, seventy-five per cent. males, twenty-five per cent. females; and that it is most frequent between the ages of twenty-five and fifty. The fundamental cause of the disease appears to be the unstimulating character of the national diet. It chiefly attacks the poor, who live all their lives on a daily mess of rice, which, after boiling, is allowed to stand for twenty-four hours in water, until fermentation has slightly set in. To this sour mess a little salt is added, and the Civil Surgeon pronounces it to be unwholesome as an article of human food. Yet this is the invariable diet of the Uriyá peasant. Europeans are seldom affected by the disease. Another cause appears to be the deleterious water; but the theory of its injurious qualities arising from its being impregnated with salt, is not, so far as I can learn, well founded. On the contrary, the Balasor peasant is particularly sensitive with regard to any saline ingredients in his drinking-water. The labourers who go out to work on the road between the town and the coast insist on a water-carrier being allowed to each little gang, so that they may be supplied with the pure fluid from beyond the influence of the sea. It is an unquestionable fact, however, that the Balasor peasant drinks all his life from wells and tanks charged with organic impurities.

The Civil Surgeon reports that twenty per cent. of the people labour under hydrocele. Goitre is met with but rarely. Fever of

at the close of the year; ratio of deaths to persons treated, 15·81 per cent.; daily average number of sick, 5·52. The out-door patients numbered 2009; average daily attendance, 21·31. Income of the dispensary in 1872, £115, 14s. od., of which Government contributed £72; expenditure, £112, 16s. od.

FAIRS AS A SOURCE of DISEASE.—Balasor being the District of Orissa most distant from Jagannáth, the pilgrim stream does not appear to be such an active cause of disease as in the two other Districts of the Province. But the Civil Surgeon reports that all the evidence before him points to the conclusion that the pilgrims do import cholera into the District.

VITAL STATISTICS.—From 1st January 1873 a new system for the registration of vital statistics has been introduced. Certain limited areas were selected for the purpose, viz. the forty separate villages comprising the town of Balasor, with a population of 18,263; and seventy-two rural villages, with a population of 11,390. The number of deaths within the town area in 1873 was 490, equal to a death-rate of 26·83 per thousand, or 1·55 below the average town rate for Bengal generally. In the following year, 1874, an accurate record of births as well as of deaths was effected. The total number of births thus recorded in Balasor town in 1874 was 749, equal to a rate of 41·01 per thousand; the deaths numbered 491, equal to a rate of 26·88 per thousand, or 1·93 below the average town rate for Bengal generally. In the selected rural area, the number of deaths in 1873 amounted to 257, equal to 22·56 per thousand, or ·09 below the rural average for Bengal generally. In the following year, 642 births were registered in the selected rural tract, equal to a rate of 56·36 per thousand; the registered deaths amounted to 271, equal to a rate of 23·79 per thousand, or 2·59 above the rural average for Bengal generally in that year.

CATTLE DISEASES are excessively prevalent, and are of three kinds. (1) *Basanta*, called cattle-pox by the Civil Surgeon, and *guti* by the natives, to distinguish it from human small-pox. It was identified by the Cattle Plague Commissioners of 1870 as a true form of rinderpest. It appears in its severest form in winter, and lasts for about two months, in November and December — occasionally, however, continuing till May. It begins with a high fever for two days, followed by a characteristic eruption all over the body. The animal lies still, droops its ears, and occasionally flaps them, refuses food, salivates freely, and coughs. During the febrile stage

thirst is very urgent, but it afterwards abates. This state of things goes on for four or five days in the severer cases, when a sharp diarrhœa sets in, of a putrid odour, and death releases the sufferer. If the animal survives the sixth day, however, it generally recovers. Of the animals attacked, thirty-five per cent. die in average seasons, but the mortality often rises to eighty or eighty-five per cent. The disease is highly communicable, and is said to attack but once in a lifetime. (2) *Paschimá*, a severer and more rapidly fatal form of *basanta*, in which there is a determination internally, and not to the skin. The death-rate in both these diseases is very much higher among buffaloes than among cows. (3) *Khurá* or *phátuá*, like the two foregoing, is endemic and contagious. It occurs, however, only in winter and the early part of the rains, *i.e.* during the months of December and January, and in June. It attacks the frog of the hoof, sometimes in one, sometimes in two, occasionally in all the four feet. The principal symptoms are as follow:—The animal first has a sore mouth, and refuses food for two days. After two days the mouth gets better, and the animal eats a little. Lameness now sets in, and the owner's attention is thus drawn to the complaint. A disease process goes on in the hoof, which soon becomes rotten, and sometimes drops off. In the severer cases the lips and tongue become swollen, and the latter looks raw and sore. Saliva dribbles in great quantities from the mouth, the animal wastes to a skeleton, and apparently dies of exhaustion. Death generally occurs within fifteen or twenty days from the first symptoms, the rate of mortality being, in ordinary seasons, from ten to fifteen per cent. of the animals attacked. It is said to rise sometimes to sixty per cent. If the animal survives this period, and is well cared for, a gradual recovery takes place.

THE INDIGENOUS DRUGS found in the District, and forming the greater part of the pharmacopœia of the native practitioner or *kabiráj*, are as follow:—*Gulanchá*, a febrifuge; *nágeswar*, an antispasmodic; *muthá*, an antispasmodic and febrifuge; *sunthi* (dry ginger), an antispasmodic; *harirá*, a febrifuge; *báhárá*, a febrifuge; *bháliyá*, a remedy for leprosy; *jiyálá*, a febrifuge; *bhuturá* (Stramonium); *kaniká* (Croton seed); *bhárgavi*, a febrifuge; *bánslochan*, a tonic; *gandhabene*, an astringent; *chákundá* seed, a detergent, much used in ringworm; *methi*, a tonic; *pán-mahuri* (aniseed); *hálim*, an anodyne; *deb-dárú*, a febrifuge; *dhániyá* (coriander); *gánjá* (Indian hemp); *satábári*, a tonic; *ankránti*, a febrifuge; *sál-*

páni, a febrifuge; *kushtapáni*, a febrifuge; *nabákuri*, a febrifuge *bel* (Ægle marmelos); *gambhári*, a febrifuge; *hánripurá*, a febrifuge *sal chiretá*, root a vesicant and counter-irritant; *pátuli*, a febrifuge; *agiyábát*, a febrifuge; *gokhurá*, a febrifuge and expectorant; *tihuri*, a purgative; *tálmuli*, a tonic; *sunáriyá* bark, a purgative; *dulubhá*, a febrifuge; *sulpá*, a febrifuge; *gandhasunthi*, an antispasmodic *ghorábach*, an astringent; *gandáli*, an anodyne and an astringent; *nárábábli*, an astringent and emulcent; *dengábheji*, a febrifuge and an expectorant; *atusi* and *káládáná*, a safe and excellent purgative. The only mineral found in the District, and used medicinally by the native practitioner, is iron. It first undergoes several pharmaceutical processes.

The native practitioner is essentially an herbalist, and most of his potions are administered in the form of infusion or decoction. He seldom prescribes powders or pills. Surgery and chemistry are not known to or practised by him. The study of anatomy is equally unknown, and obstetric practice is a specialty restricted to uneducated midwives. According to the Civil Surgeon, the native practitioner knows only a rude and barbarous eclecticism. He learns little from experience, investigation, or practical research. All is one unvarying sameness. Every ailment has its formal specifics, from which there is no deviation in orthodox practice, save the option between two or more of the recipes given in his text-book for the same description of symptoms. It must be observed, however, that these strictures have special reference to the degenerate and uneducated native practitioners of Balasor.

INDEX

TO

CUTTACK AND BALASOR.

A

Abbartak, *pargand* in Cuttack, 223.
Aboriginal population, Cuttack, 67, 68, 77, 78; Balasor, 268, 277.
Achála Basanta, hill in Cuttack, Ruins on, 94.
Act x. of 1859.—*See* Rent law.
Adá-Rupiya, *pargand* in Balasor, 361.
Administrative divisions, Cuttack, 220-223; Balasor, 360, 361.
Administrative headquarters of Cuttack, 20; of Balasor, 248.
Administrative history of Balasor, 344.
Age, Population according to, Cuttack, 64, 66; Balasor, 266, 267.
Agricultural implements, Cuttack, 117; Balasor, 295.
Agricultural labourers.—*See* Cultivators.
Agriculture in Cuttack, 99-117; in Balasor, 289-292.
Ahiyas, *pargand* in Cuttack, 223.
Alamgír hill, Temple on, 90-92.
Alti, *pargand* in Cuttack, 223, 224.
Amravati hill, Ruins on, 96.
Anábartak, *pargand* in Cuttack, 224.
Animals, Domestic, Cuttack, 110; Balasor, 295.
Animals, Wild.—*See Feræ Naturæ.* Loss of life by.—*See* Deaths.
Ankurá, *pargand* in Balasor, 361.
Antiquarian remains in Cuttack, 85-97, 179-187.
Apilá, *pargand* in Cuttack, 224.
Arable tract in Balasor, the, 249, 250.
Area of Cuttack, 19, 20, 65; cultivated, 104-107; of Balasor, 247, 248, 265; cultivated, 291.
Armala, *pargand* in Balasor, 361.
Arso, *pargand* in Balasor, 361.
Aspect, General physical, of Cuttack, 20, 21; of Balasor, 248-250.
Aspects, Medical.—*See* Medical.
Assiá, range of hills in Cuttack, 22, 90.
Assiágirí, hill in Cuttack, 22.
Asureswar, *pargand* in Cuttack, 224.
Atkhantá, *pargand* in Cuttack, 224.
Aul Kilá, *pargand* in Cuttack, 224.

B

Bahurúpá, *pargand* in Cuttack, 224.
Baitaraní river, 22, 23, 25, 36, 251, 252.
Bákrábád, *pargand* in Cuttack, 224.
Bákud Channel, False Point, 29.
Balance sheet.—*See* Revenue and expenditure.
BALASOR DISTRICT—
Geographical Situation, Area, and Headquarters, 247, 248; Boundaries and Jurisdiction, 248; General Aspect of the District, 248-250; River System, 250-252; Ports and Harbours, 252-263; Embankments, 263; Fisheries, 263; *Feræ Naturæ*, 264; Population—Early Estimates, 264; the Census of 1872, 264, 265; Classification according to Sex, Religion, and Age, 266, 267; Infirms, 267; Ethnical Division of the People, 267-270; Emigration, 270, 271; List of Hindu Castes, 271-277; Aboriginal Tribes, 277; Religious Division of the People, 277-279; Division of the People into Town and Country, 279, 280; Balasor Town, 280-283; Minor Towns, 283, 284; Fairs, 284; Village Officials, 284-287; Material Condition of the People—Dress, Dwellings, Food, etc., 287-289; Agriculture—Rice Crops, 289-291; Other Crops, 291; Cultivated Area and Out-turn of Crops, 291, 292; Condition of the Peasantry, 282-294; Tenant Rights, 294, 295; Domestic Animals, and Agricultural Implements, 295; Wages and Prices, 295-

BALASOR DISTRICT—*continued.*
299; Weights and Measures, 297; Day-Labourers, 297-300; Waste Land, 300, 301; Land Tenures, 301-320; Rates of Rent, 320-322; Manures, 322; Natural Calamities, Blights, Floods, and Droughts, 322-326; Famine Warnings, 326-328; The Famine of 1866, 328-334; Roads, 334-336; Manufactures, 336, 337; Trade, 337-344; Administrative History, 344; Land Tax, 344, 346; Revenue and Expenditure, 344, 345; Civil and Criminal Courts, 346; Police and Jail Statistics, 346-352; Educational Statistics, 352-359; Postal Statistics, 359; Administrative Divisions, 360, 361; List of Fiscal Divisions and Chief Villages in each, 361-366; Climate, Temperature, and Rainfall, 366, 367; Diseases, 367-369; Dispensaries, 369, 370; Vital Statistics, 370; Cattle Diseases, 370, 371; Indigenous Drugs, 371, 372.
Balasor port, 255-258; *thánd*, 265, 360; town, description and history of rise of, 279-283.
Báliápal *thánd*, Balasor, 265, 360.
Balkhand, *pargand* in Balasor, 361.
Bálubisi, *pargand* in Cuttack, 224.
Banahár, *pargand* in Balasor, 361.
Bauchas, *pargand* in Balasor, 362.
Baniyá caste in Cuttack, 73.
Banks of rivers, Cuttack, 22.
Bántara, *pargand* in Cuttack, 225.
Bántara, *pargand* in Balasor, 362.
Para Dehi hill in Cuttack, Ruins on, 94.
Bárán, *pargand* in Cuttack, 224.
Bárdiyálá, *pargand* in Cuttack, 224.
Bárgáon, *pargand* in Cuttack, 225.
Barpallá, *pargand* in Cuttack, 225.
Barudis, head *rayats* in Balasor, 287.
Baruyá, *pargand* in Cuttack, 225.
Bastá, *pargand* in Balasor, 362.
Bastá *thánd*, Balasor, 265, 360.
Basudebpur *thánd*, Balasor, 265, 361.
Bayang, *pargand* in Balasor, 362.
Benáhár, *pargand* in Cuttack, 225.
Bhadrakh Subdivision, Balasor, 265, 279, 280, 360, 361.
Bhadrakh town and *thánd*, Balasor, 265, 283, 284, 361.
Bhandáris.—*See* Nápits.
Bhelorachaur, *pargand* in Balasor, 362.
Bhirá, *pargand* in Balasor, 362.
Bhográi embankment, Balasor, 263, 323, 324.
Bhográi, *pargand* in Balasor, 362.
Birúpá river in Cuttack, 23, 24, 35.
Bisalkhand, *pargand* in Balasor, 362.
Bishnupur Kilá, *pargand* in Cuttack, 225.
Black Pagoda (or Sun-Temple), the, at Kanárak, Cuttack, 186.
Blights in Cuttack, 146, 147; in Balasor, 322, 323.
Blind, Number of, Cuttack, 67; Balasor, 267.
Boundaries of Cuttack, 20; of Balasor, 248.
Bráhma Samáj, the, in Cuttack, 78, 79.
Bráhmaní estuaries, Cuttack 33-35
Bráhmaní river, in Cuttack, 22 23, 25 36
Bráhmans in Cuttack, 71; in Balasor, 271, 272.
Buddhists in Cuttack, 64, 66, 79, memorials of the, 179-183.
Burábalang river, in Balasor, 251

C

Campbell's, Sir George, educational reforms, Cuttack, 215; Balasor, 355. 356
Canals in Cuttack, 37-53.
Castes in Cuttack, 71-77; in Balasor, 271-277.
Cattle in Cuttack, 59; in Balasor, 293
Cattle disease in Cuttack, 108, 240; in Balasor, 370, 371.
Caves in Cuttack.—*See* Antiquarian Remains
Census of 1872 in Cuttack, 60-67, in Balasor 264-267.
Cereal crops, Cuttack, 99-103, Balasor, 289-291.
Chándbáli, port in Balasor, 260 262
Changes of jurisdiction, Cuttack Balasor, 248, 344.
Charitable dispensaries.—*See* Dispensaries
Chásás, caste of cultivators in Orissa, 74 in Balasor, 275.
Chauktdárs.—*See* Rural police
Chaurdá Kolát, *pargand* in Cuttack, 225
Chhánuyá, *pargand* in Balasor, 362
Chhánuyá port, Balasor, 255.
Chhedrá Kadalibárí, *pargand* in Cuttack, 225.
Chhedrá Kilá, *pargand* in Cuttack, 225.
Children under twelve.—*See* Age
Chitartalá, river in Cuttack, 23, 24 36
Cholera in Cuttack, 235, 240; in Balasor, 368, 369, 370.
Christian population of Cuttack, 64, 66, 80, 83; of Balasor, 266, 267, 277 279.
Churáman port, Balasor, 258, 259
Climate of Cuttack, 234; of Balasor 366.
Commerce and trade in Cuttack (False Point, 31, 32), 175, 176; in Balasor, 337, 344.
Communication, Means of, Cuttack, 173, 174, 336, 337; Balasor, 334-336
Condition of the people, Material in Cuttack, 97-99; in Balasor, 287 289
Cotton cultivation in Balasor, 291
Courts in Cuttack, 203; in Balasor, 346
Criminal classes, Cuttack, 208, 209, Balasor, 350.
Criminal statistics, Cuttack, 205-209, Balasor, 348-350.
Crops.—*See* Tillage.
Cultivable land in Cuttack, 231, 232
Cultivating tenures in Cuttack, 135 137 in Balasor, 313-317.
Cultivation.—*See* Tillage.
Cultivators, Condition of the, Cuttack, 107 109; Balasor, 292-294.

k (Katak) city, 20, 80, 82-84; ensary, 236-238; High School, 215-; lunatic asylum, 238, 239; *thánd*, 65,

TACK (KATAK) DISTRICT—
Geographical Situation, Area, and Headquarters, 19, 20; Boundaries, 20; Jurisdiction, 20; General Aspect of the District, 20, 21; Hills, 21, 22; River System, 22-25; Estuaries and Harbours, 25-27; False Point, 27-30; History of the Harbour, 30, 31; its Trade, 31, 32; its Future Capabilities and Improvements, 32, 33; The Brahmaní and Dhámrá Estuaries, 33-35; Distribution and Control of the Water Supply, 35-37; The Orissa Canal System (High-Level, Kendrápárá, Táldandá, and Machhgáon Canals), 37-44; Irrigation Capabilities, 44-49; Financial Aspects, 49-51; Embankments, 51-53; Utilization of Water Supply, 53; Fisheries, 53-58; Lines of Drainage, 58; Jungle Products and Pastures, 58, 59; *Ferœ Naturæ*, 59; Population—Early Estimates, 59, 60; Census of 1872, its Agency and Results, 60-64; Classification according to Sex, Religion, and Age, 64-67; Infirms, 67; Ethnical Division of the People, 67-71; List of Hindu Castes, 71-77; Aboriginal Tribes, 77, 78; Religious Division of the People, 78-80; Division of the People into Town and Country, 80-82; Cuttack (Katak) City, 82, 83; The Citadel of Cuttack, 83, 84; Jájpur, 84, 85; Sivaite Temples and Sculptures, 85-89; Kendrápárá, 89, 90; Jagatsinhpur, 90; Antiquities of the Cuttack Hills, 90-97; Material Condition of the People—Dress, Dwellings, Food, etc. 97-99; Agriculture—Rice Cultivation and List of Crops, 99-102; Other Cereals, 102; Pulses and Fibres, 102, 103; Miscellaneous Crops, 103, 104; Cultivated Area and Out-turn of Crops, 104-107; Condition of the Peasantry, 107-109; Rent Law, 109, 110; Domestic Animals, 110; Wages and Prices, 110-116; Agricultural Implements, 117; Weights and Measures, 117; Landless Labouring Classes, 117, 118; Land Settlement, 118-122; Land Tenures—Tributary Estates or Kiláját, 122-125; *Zamíndárís*, 125-131; Intermediate Estates paying Revenue through the *zamíndárs*, 131; Resumed Revenue-free Tenures, 134, 135; Quit-rent Tenures, 135; Cultivating Tenures, 135-137; Religious and Charitable Tenures, 137, 138; Service Tenures, 138, 139; Rates of Rent, 139-146; Manure, Irrigation, and Rotation of Crops, 146; Natural Calamities—Blights, Floods, and Droughts, 146-148; Famine Warnings and Preventive Works, 148; The Famine of 1866, 148-173; Roads and other Means of Communication, 173, 174; Manufactures, 174, 175; Commerce and Trade, 175-177; History of Orissa—Pre-historic Period, 177, 178; The Buddhists, 179-181; The Sivaite Dynasty, 183, 184; The Vishnuvite Dynasty, 184-188; The Muhammadan Conquest, 188-192; The Marhattá Rule, 192-196; The English Conquest, 196-200; Revenue and Expenditure, 200-202; Land Revenue, 202, 203; Civil and Criminal Courts, 203; Police and Jail Statistics, 203-212; Educational Statistics, 212-220; Postal Statistics, 220; Administrative Divisions, 220-223; List of *Pargands* with Chief Villages in each, 223-234; Climate, Temperature, and Rainfall, 234, 235; Endemics and Epidemics, 235, 236; Charitable Dispensaries, 236-238; Cuttack Lunatic Asylum, 238, 239; Vital Statistics, 239; Fairs, 239, 240; Cattle Disease, 240; Indigenous Drugs, 240-243.
Cuttack Hávelí, *parganá* in Cuttack, 225.

D

Dákáitt, in Cuttack, 206; in Balasor, 348.
Dálijorá, *parganá* in Cuttack, 225.
Dámarpur, *parganá* in Cuttack, 225.
Danish settlement, Ancient, in Balasor, 283.
Daráráchaur, *parganá* in Balasor, 362.
Darpan Kilá, *parganá* in Cuttack, 225, 226.
Dasmalang, *parganá* in Balasor, 362.
Day-labourers in Cuttack, 110, 117, 118; in Balasor, 297, 300.
Deaf and dumb, Number of, Cuttack, 67; Balasor, 267.
Deaths by wild beasts, etc. in Cuttack, 59.
Density of population, in Cuttack, 64, 65; in Balasor, 264, 265.
Deogáon, *parganá* in Cuttack, 226.
Derábisí, *parganá* in Cuttack, 226.
Devi estuary, Cuttack, 26, 27.
Devi, river in Cuttack, 23, 24, 36.
Dhamnagar, *parganá* in Balasor, 362.
Dhámnagar, *thánd*, Balasor, 265, 361.
Dhámrá, estuary and harbour, in Cuttack, 33-35.
Dhámrá ports, Balasor, 259-262.
Dhámrá river, 23, 25, 251.
Dharmsálá, *thánd* in Cuttack, 65, 203.
Dihi Arakpur, *parganá* in Cuttack, 226.
Dinemár-dángá, ancient Danish settlement in Balasor, 283.
Diseases, Cuttack, 235, 236; Balasor, 367-369.
Dispensaries in Cuttack, 236-238; in Balasor, 369, 370.
Dográ, estates in Cuttack, 130, 131.
Dolgrám, *parganá* in Cuttack, 226.
Domestic animals.—*See* Animals.
Dompárá Kilá, *parganá* in Cuttack, 226.
Dowdeswell Island, Cuttack, 27.
Drainage, Lines of, in Cuttack, 58.
Dress of the people in Cuttack, 98; in Balasor, 289.
Drought in Cuttack, 45, 147; in Balasor, 325, 326.

Drugs, Indigenous, Cuttack, 240-243; Balasor, 371, 372.
Dumb, Number of.—*See* Deaf and dumb.
Dutch settlement, Ancient, in Balasor, 283.
Dwellings of the people, Cuttack, 98; Balasor, 289.

E

East Indian Irrigation Company.—*See* Irrigation.
Educational statistics, Cuttack, 212-220; Balasor, 352-359.
Elephant cave, the, Cuttack, 179.
Embankments, Cuttack, 35, 51-53; Balasor, 263, 323, 324.
Emigration from Balasor, 270, 271.
Endemics.—*See* Diseases.
English conquest of Orissa in 1803, 196-200.
Enhancement of rent.—*See* Rent law.
Epidemics.—*See* Diseases.
Estuaries, Cuttack, 25-27, 33-35.
Ethnical division of the people, Cuttack, 67-70; Balasor, 267-270.
Expenditure, Cuttack, 200-202; Balasor, 344-346.
Exports (False Point, 31, 32), Cuttack, 175, 176; Balasor, 337-340, 342-344.

F

Fairs in Cuttack, 239, 240; in Balasor, 284.
Fallow land in Balasor, 322.
False Point harbour, Description of, 27-30; history of, 30, 31; trade of, 31, 32; future capabilities of, 32, 33.
Famine of 1866 in Orissa, 148-173, 328-334.
Famine preventive works, Cuttack, 148.
Famines of 1770 and 1777 in Orissa, 194.
Famine warnings, in Cuttack, 38, 148; in Balasor, 326-328.
Faresh-dángá, French settlement in Balasor, 283.
Fathábád, *parganá* in Balasor, 362.
Female education.—*See* Girls' schools.
Females.—*See* Sex.
Feræ Naturæ of Cuttack, 59; of Balasor, 264.
Fibres, Cultivation of, in Cuttack, 103.
Filigree work of Cuttack, 83, 175.
Fiscal divisions.—*See Pargands.*
Fisheries in Cuttack, 53-58; in Balasor, 263.
Fishes of Cuttack, 57; of Balasor, 264.
Fishing castes and communities, Cuttack, 53, 54; Balasor, 263.
Fishing, Modes of, in Cuttack, 54, 55.
Floods, Cuttack, 35, 51-53, 147; Balasor, 323, 324.
Food of the people, Cuttack, 99; Balasor, 289.
Fort Barábátí, the citadel of Cuttac 83, 84.
French settlement in Balasor, 283.
Furniture of the people, Cuttack, 9 Balasor, 289.

G

Gandito, *parganá* in Cuttack, 226.
Ganeswar, *parganá* in Balasor, 363.
Gangetic dynasty, the, in Orissa, 187, 1
Garhpádá, *parganá* in Balasor, 363.
Gaurs, a pastoral caste in Cuttack, 74.
Gengutí, river in Cuttack, 23, 24.
Girls' schools in Cuttack, 213, 21 218, 2 in Balasor, 353, 354, 356, 358, 359.
Gonds in Cuttack, 77, 78; in Balasor, 2
Government high school, Balasor, 357.

H

Harbours, Cuttack, 25, 33-35; Bala 252-262.
Hariharpur, *parganá* in Cuttack, 226.
Harishpur Kilá, *parganá* in Cuttack, 22
Hátimundá, *parganá* in Cuttack, 226.
High-level canal, Cuttack, 39-41.
Hills of Cuttack, 21, 22.
Hindu population of Cuttack, 64, 66, 78, of Balasor, 266, 277, 278.
History of Orissa, 177-200.
Holdings, Size of.—*See* Cultivators, C dition of.
Hollandais-sáhí, ancient Dutch settlemen Balasor, 283.
Houses, Number of, Cuttack, 64, Balasor, 264, 265.
Houses of the people.—*See* Dwellings.
Husbandmen.—*See* Cultivators.

I

Idiots, Number of, Cuttack, 67; Bala 267.
Implements of agriculture, Cuttack, Balasor, 295.
Imports, Cuttack (False Point, 31, 32) 176; Balasor, 337-341, 343, 344.
Indigenous drugs.—*See* Drugs.
Infirms, Number of, in Cuttack, 67; Balasor, 267.
Insanes, Number of, Cuttack, 67; Bala 267.
Inundations.—*See* Floods.
Irrigation in Cuttack, 37-53, 146.

J

Jagannáth, Temple of.—*See* Palm Records.

annáthpur, *thánd* in Cuttack, 65, 203.
gatsinhpur Subdivision, Cuttack, 65, 81, 144, 145, 222, 223.
gatsinhpur, town and *thánd* in Cuttack, 65, 90, 203.
Jágirs in Cuttack, 134, 135; in Balasor, 317-320.
Jail manufactures, Cuttack, 212; Balasor, 352.
Jail statistics, General, Cuttack, 209-212; Balasor, 350-352.
Jains in Cuttack, 79.
Jájpur Subdivision, Cuttack, 65, 81, 145, 146, 222.
Jájpur, *parganá* in Cuttack, 226.
Jájpur, *parganá* in Balasor, 363.
Jájpur, town and *thánd* in Cuttack, 65, 81, 82, 84-89, 203; dispensary, 238.
Jaleswar, *parganá* in Balasor, 363.
Jaleswar, *thánd* in Balasor, 265, 284, 360.
Jambu Channel, False Point, 29.
Jámká, river in Balasor, 251.
Janayábád *parganá* in Cuttack, 226.
Jayápur, *parganá* in Balasor, 363.
Jaypur, *parganá* in Cuttack, 226, 227.
Jhankar, *parganá* in Cuttack, 227.
Jodh, *parganá* in Cuttack, 227.
Jotdár, channel of the Devi estuary, Cuttack, 25, 26.
Jungle products, Cuttack, 21, 58.
Jurisdiction, Cuttack, 20; Balasor, 248, 344.
Jute cultivation in Cuttack, 103.

K

Kaedá, *parganá* in Balasor, 363.
Kalámatiyá, *parganá* in Cuttack, 227.
Kálfbhanj island, Cuttack, 34.
Kalinga, ancient name of Orissa, *q.v.*
Kalkalá Kilá, *parganá* in Cuttack, 227.
Kamardáchaur, *parganá* in Balasor, 363.
Kanárak, Sun Temple at, 186.
Kanchikhand, *parganá* in Cuttack, 227.
Kandhs, an aboriginal tribe in Cuttack, 69, 77, 178.
Kaniká Kilá, *parganá* in Cuttack, 227.
Kánsbáns, river in Balasor, 251.
Karimul, *parganá* in Cuttack, 227.
Kárfis, village rent-collectors, Balasor, 287.
Katak.—*See* Cuttack.
Kate, *parganá* in Cuttack, 227.
Katiyá, *parganá* in Cuttack, 227.
Kátjuri, river in Cuttack, 23, 24, 35.
Kátsáhí, *parganá* in Balasor, 363.
Kayámá, *parganá* in Balasor, 363.
Kayámá, *parganá* in Cuttack, 227.
Kelo, river in Cuttack, 23, 24.
Kendrápárá Canal, Cuttack, 29, 31, 41-43, 49.
Kendrápárá Subdivision, Cuttack, 65, 81, 144, 221, 222.
Kendrápárá, town and *thánd*, Cuttack, 65, 81, 82, 89, 90, 203.
Keruyalkhand, *parganá* in Cuttack, 227, 228.
Khándáit, caste in Cuttack, 72; in Balasor, 273, 274.
Khandgirí hill, Antiquarian remains on, 179, 180.
Khandí, *parganá* in Cuttack, 228.
Kharijá estates in Cuttack, 131; in Balasor, 309, 310.
Kharsuá, river in Cuttack, 23, 25.
Khejuri, *parganá* in Balasor, 363.
Khirang, in Balasor, Fair at, 284.
Kilá-Ambo, *parganá* in Balasor, 363.
Kilá Ambohátá, *parganá* in Balasor, 363.
Kiláját, or tributary estates, in Cuttack, 122-125.
Kilá Manjalpur, *parganá* in Balasor, 363.
Kilá Patná, *parganá* in Balasor, 363.
Kilá Talmundá, *parganá* in Balasor, 364.
Kimiriá, river in Cuttack, 23, 25.
Kismat Ankurá, *parganá* in Balasor, 364.
Kismat Katsái, *parganá* in Balasor, 364.
Kismat Nápo, *parganá* in Balasor, 364.
Kodindá, *parganá* in Balasor, 364.
Kodindá, *parganá* in Cuttack, 228.
Kokuyakhand, *parganá* in Cuttack, 228.
Kols, an aboriginal tribe, in Cuttack, 67, 78; in Balasor, 277.
Koyakhái, river in Cuttack, 23, 24, 35.
Kuhundá, *parganá* in Cuttack, 228.
Kujang Kilá, *parganá* in Cuttack, 228.
Kunardáchaur, *parganá* in Balasor, 364.
Kundi, *parganá* in Balasor, 364.
Kurái, *parganá* in Balasor, 364.
Kurniyá, *parganá* in Cuttack, 228.
Kusmandal, *parganá* in Cuttack, 228.
Kutabsháhí, *parganá* in Cuttack, 228.

L

Labourers.—*See* Cultivators.
Láichanpur port, Balasor, 258, 259.
Lákhiráj land tenures, in Cuttack, 134, 135; in Balasor, 310-313.
Lakrajít, *parganá* in Balasor, 364.
Land, Cultivable, in Cuttack, 231, 232.
Land measures, Cuttack, 117, 140.
Land revenue of Cuttack, 202, 203; of Balasor, 344-346.
Land Settlement, Cuttack, 118-122.
Land, Spare, in Balasor, 300, 301.
Land tenures, in Cuttack, 122-139; in Balasor, 301-320.
Landless labouring classes, Cuttack 117, 118.
Laukit, or worldly Bráhmans, in Cuttack, 71; in Balasor, 272.
Lepers, Number of, Cuttack, 67; Balasor, 267.
Lion Dynasty, the, in Orissa, 187.
Lohár caste in Cuttack, 73.
Long Island, Cuttack, 27.
Long-stemmed rice.—*See* Rice.
Loss of life by wild beasts, etc.—*See* Deaths.

M

Machhgáon canal, Cuttack, 43, 44.
Machhgáon rice mart in Cuttack, 26, 27.
Madhupur Kilá, *parganá* in Cuttack, 228.
Mahánadí estuaries, Cuttack, 25, 27.
Mahánadí river, 22-25, 35, 36, 178.
Mahávinyaka peak, in Cuttack, 22; ruins on, 96, 97.
Mahurigáon, in Balasor, 261, 262.
Máipára, river in Cuttack, 23, 25, 33.
Males, Proportion of, in population.—*See* Sex.
Manjurí, *parganá* in Cuttack, 228.
Manjurí, *parganá* in Balasor, 364.
Manufactures of Cuttack, 174, 175; of Balasor, 326, 327.
Manure, Cuttack, 146; Balasor, 322.
Marhattá rule in Orissa, 192-196.
Mársághái, Cuttack, 31.
Marshes in Cuttack, 58.
Matáí river, 252.
Material condition of the people.—*See* Condition.
Matkadábád, *parganá* in Cuttack, 228.
Matkadábád, *parganá* in Balasor, 364.
Matkadnagar, *parganá* in Cuttack, 228.
Matkadnagar, *parganá* in Balasor, 364.
Measures, Cuttack, 117; Balasor, 297.
Medical aspects of Cuttack, 234-243; of Balasor, 366-372.
Meteorological statistics, Cuttack, 234, 235; Balasor, 366, 367.
Minerals in Cuttack, 177.
Missionary work in Balasor, 278, 279, 353, 354, 357, 358.
Mortality.—*See* Vital statistics.
Mountains.—*See* Hills.
Mughuls, a class of Musalmáns in Cuttack, 79.
Muhammadan conquest of Orissa, 188-192.
Muhammadan population of Cuttack, 64, 66, 79, 80, 83; of Balasor, 266, 267, 277, 278.
Mukáddamí land tenures in Cuttack, 130, 131, 132; in Balasor, 306, 307.
Mukaddams, village officials in Balasor, 286.
Mukhrá, *pargana* in Balasor, 364.
Muldáchaur, *parganá* in Balasor, 365.
Mulgáon, *parganá* in Balasor, 364, 365.
Municipal police in Cuttack, 204; in Balasor, 347.
Mustard cultivation in Cuttack, 103, 104; in Balasor, 291.
Mutoh *thánd*, Balasor, 265, 361.
Mutrí, *parganá* in Cuttack, 228.

N

Náhákhand, *parganá* in Cuttack, 229.
Náitigirí hill, in Cuttack, 22; ruins on, 94-96.
Nangaleswar, *parganá* in Balasor, 365.
Nápits, caste of barbers, in Cuttack, 7 in Balasor, 274.
Napochaur, *parganá* in Balasor, 365.
Native Christians in Cuttack, 80; in Balasor 278, 279.
Native physicians, Balasor, 372.
Natural calamities, Cuttack, 146-173; Balasor, 322-334.
Neulbisí, *parganá* in Cuttack, 228, 229.
Nun, river in Cuttack, 23, 25, 36.
Nuná, or salt embankment in Balasor, 26 323.
Nunkhand, *parganá* in Balasor, 365.

O

Occupancy rights.—*See* rent law.
Olash, *parganá* in Cuttack, 229.
Operation of Rent law.—*See* Rent law.
Orissa canal system, 37-53; traffic on, 17 176.
Orissa, Famine of 1866 in, 148-173; histo of, 177-200; origin of name, 178.
Out-turn of crops, Cuttack, 104-107; Ba sor, 292.

P

Padampur, *parganá* in Cuttack, 229.
Paená, *parganá* in Cuttack, 229.
Paendá, *parganá* in Cuttack, 229.
Páiká, river in Cuttack, 23, 24, 36.
Palm-leaf records of the Temple of Jag náth, 181-187.
Pán cultivation in Cuttack, 104; in Balas 291.
Pánchmalang, *parganá* in Balasor, 365.
Pánchpárá, river in Balasor, 250, 251.
Pánikhand, *parganá* in Cuttack, 229.
Parganás in Cuttack, List of, 223-231, 2 234; in Balasor, 301-366.
Parganás of Cuttack, Rates of rent in different, 141-146; of Balasor, 321, 32
Pastures in Cuttack, 58, 59.
Patámundái, *thánd* in Cuttack, 65, 203.
Patháns, a class of Musalmáns in Cutt 79.
Páthsálás or village schools.—*See* Prim education.
Patiyá Kilá, *parganá* in Cuttack, 229.
Patuá estates, in Cuttack, 131.
Pátu Mahánadí, *parganá* in Cuttack, 2
Patwárís, village collecting agents, in Bala sor, 287.
Peasantry.—*See* Cultivators.
Phulwar, *parganá* in Balasor, 365.
Pipplí, Early English settlement at, 253, 282 282.
Plowden Island, Cuttack, 28.
Point Palmyras, 34.
Police circles.—*See Thánás.*